MINUTES

North Dakota State Water Commission
Bismarck, North Dakota

August 22, 1991

The North Dakota State Water Commission held a meeting in the lower level conference room of the State Office Building, Bismarck, North Dakota, on August 22, 1991. Chairman, Lieutenant Governor Lloyd Omdahl, called the meeting to order at 8:30 AM, and requested State Engineer and Chief Engineer-Secretary, David Sprynczynatyk, to call the roll. The Chairman declared a quorum was present.

MEMBERS PRESENT:
Lieutenant Governor Lloyd Omdahl, Chairman
Sarah Vogel, Commissioner, Department of Agriculture, Bismarck
Joyce Byerly, Member from Bismarck
Jacob Gust, Member from West Fargo
Lorry Kramer, Member from Minot
Daniel Narlock, Member from Grand Forks
Norman Rudel, Member from Fessenden
Jerome Spaeth, Member from Bismarck
David Sprynczynatyk, State Engineer and Chief Engineer-Secretary, North Dakota State Water Commission, Bismarck

OTHERS PRESENT:
State Water Commission Staff Members
Approximately 20 persons in attendance interested in agenda items

The attendance register is on file in the State Water Commission offices (filed with official copy of minutes).

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

RESIGNATION OF COMMISSION MEMBER, WILLIAM LARDY, EFFECTIVE JUNE 30, 1991

Commissioner William Lardy submitted his resignation as a member of the State Water Commission, effective July 1, 1991. He served as a member of the State Water Commission from July 1, 1985 to July 1, 1991. Commissioner Lardy has accepted employment with the State Government.

APPROVAL OF AGENDA

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

CONSIDERATION OF MINUTES OF JUNE 24, 1991 MEETING - APPROVED

The minutes of the June 24, 1991 meeting were approved by the following motion:

It was moved by Commissioner Byerly, seconded by Commissioner Kramer, and unanimously carried, that the minutes of the June 24, 1991 meeting be approved as circulated.

CONSIDERATION OF MINUTES OF JULY 31, 1991 TELEPHONE CONFERENCE CALL MEETING - APPROVED

The minutes of the July 31, 1991 telephone conference call meeting were approved by the following motion:

It was moved by Commissioner Byerly, seconded by Commissioner Kramer, and unanimously carried, that the minutes of the July 31, 1991 telephone conference call meeting be approved as circulated.

AGENCY FINANCIAL STATEMENT

Charles Rydell, Assistant State Engineer, presented and discussed the Program Budget Expenditures and Programs/Projects Authorized, dated June 30, 1991. These reports reflect 100 percent of the current biennium.

Mr. Rydell indicated the State Water Commission turned back approximately $150,000 to the State General Fund at the end of the 1989-1991 biennium.

Mr. Rydell presented and discussed the agency cost centers and the budget for the 1991-1993 biennium.

SOUTHWEST PIPELINE PROJECT - PROJECT CONSTRUCTION UPDATE (SWC Project No. 1736)

Tim Fay, Manager of the Southwest Pipeline Project, indicated it appears the pump stations at Richardton and Dodge will not be complete by August 20, 1991, resulting from the problems incurred earlier with the supplier of the interior piping.

At Richardton, the steel reservoir is ready for final testing; the piping, pumps and motors are nearly all assembled; the electric transmission lines and substation are complete; and the wiring is in progress but

not yet complete. Mr. Fay said when the wiring is complete, the controls must be subjected to a coordination study to ensure they work correctly and the pumps must be subjected to a 32-hour test. Some painting and general touch-up work also remains to be done.

Mr. Fay said it will be possible to use the pumps at Richardton even before the final completion. More than seven million gallons will be moved as a part of the 32-hour test.

The Dodge pump station is at approximately the same stage as the one at Richardton. One exception is that a transformer required as part of the electrical substation will not be available until September 19. Mr. Fay indicated this is our responsibility and not the pump station contractor's. Final wiring, coordination and pump testing cannot be done without it.

The Dodge pump station is only required for high flows and is not expected to be needed for beginning service.

Mr. Fay explained that since the delays were caused by forces beyond the contractor's control, and since the delays will not seriously affect the beginning of service, change orders have been prepared granting time extensions until September 14, 1991 at Richardton and October 4, 1991 at Dodge.

During the past month, State Water Commission personnel have been filling the lines and testing valves. The line is filled with fresh water with the exception of a segment on both sides of the Richardton pump station. Mr. Fay said this segment must be delayed until the piping in the pump station is water-tight.

Interviews have been held for two of the operations staff, including a maintenance worker and an electrician. Mr. Fay said these people will be hired in time for them to become familiar with the system before service begins and they will also assist in some of the preparatory work.

SOUTHWEST PIPELINE PROJECT - CONTINUED DISCUSSION RELATIVE TO WATER TREATMENT AGREEMENT WITH CITY OF DICKINSON (SWC Project No. 1736)

At the May 3, 1991 meeting, the Commission tentatively approved the Southwest Pipeline Project water treatment agreement, contingent upon favorable negotiations with the City of Dickinson.

Mr. Fay stated the agreement with the City of Dickinson covering treatment has been reviewed by the city and a final draft, which is essentially the same as approved by the Commission on May 3, 1991, is now under review.

Henry Schank, Mayor of the City of Dickinson, indicated review of the water treatment agreement is complete and the agreement will be approved basically as it was presented by the State Water Commission. Mayor Schank said it is the intent of the city to cooperate with the State Water Commission and that the agreement be as workable and simple as possible.

SOUTHWEST PIPELINE PROJECT - "COMMISSIONING" OF PROJECT SCHEDULED FOR OCTOBER 22, 1991 (SWC Project No. 1736)

Tim Fay stated the "Commissioning" ceremony for the Southwest Pipeline Project is scheduled for October 22, 1991 in Dickinson.

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

Secretary Sprynczynatyk indicated Congress has approved $33 million of federal funds for the Garrison Diversion Project for Fiscal Year 1992. Approximately $16 million will go toward the State MR&I Program and approximately $4.5 million will go toward the Indian MR&I Program. The remaining funds will be allocated for fish and wildlife mitigation and enhancement for the project. Secretary Sprynczynatyk stated funds were not included in the FY '92 appropriation for further construction of the project's central supply works.

In July, 1991, the Garrison Conservancy District's Executive Board executed an agreement with the Bureau of Reclamation to assume the responsibility for maintenance of the existing central supply works. The Conservancy District is in the process of increasing staff in order to do the maintenance work and the District anticipates being fully functional as the maintenance entity by October 1, 1991.

Secretary Sprynczynatyk briefed the Commission members on the project construction progress. The final contract on the New Rockford Canal will be completed this fall and will actually complete all of the construction that is pending in terms of the FY '91 appropriation.

GARRISON DIVERSION PROJECT - CONSIDERATION AND APPROVAL OF FUNDS TO RETAIN ENVIRONMENTAL CONSULTANT FOR PROJECT (SWC Project No. 237)

Secretary Sprynczynatyk stated that earlier this spring, Governor Sinner met with the Congressional Delegation to discuss the future of the Garrison Diversion Project and how to move it along. The delegation commented that we may not be presenting the project the way it should be to the environmental community. It was suggested that the state, including the Garrison Conservancy District, should retain an environmental consultant to assist in this area. The Governor agreed that this would seem wise and that we should move ahead to get the job done.

As a result of that meeting, the Manager of the Garrison Conservancy District, the Commissioner of the Game and Fish Department, and the State Engineer went to Washington, DC in June to meet with staff of the delegation and to interview five consultants for the job. As a result of the interviews, three of the consultants were asked to submit proposals. Those proposals were reviewed, and one of the firms, Will & Muys, was asked to send a representative to North Dakota for the purpose of touring the project and meet many of the people involved in the project in order to form a better strategy for what can be done to move the project along.

Peter Carlson of Will & Muys was in North Dakota two weeks ago, along with former New Mexico Governor, Garry Carruthers, to plan a project strategy. Mr. Carruthers has been retained by Governor Sinner to provide lobbying services for the state in Washington, DC on a number of issues, but focusing primarily on the Garrison Diversion Project. Secretary Sprynczynatyk indicated the visit went well and everyone seems to believe Mr. Carlson and his firm can help us on the project. Mr. Carlson will prepare and package a new presentation of the project for negotiations with the National Audubon Society, the National Wildlife Federation, and possibly Congressional committees.

Secretary Sprynczynatyk explained all of this effort could take up to 18 months and could cost approximately $120,000. The Conservancy District is willing to pay half of this cost, if the State can pick up the balance. The Commissioner of the Game and Fish Department has indicated a willingness to pay up to $20,000 of the expense, leaving a remaining balance of $40,000.

It was the recommendation of the State Engineer that the State Water Commission obligate $40,000 from the Contract Fund, contingent upon the availability of funds, toward retaining the firm of Will & Muys as the envir-

onmental consultant for the Garrison Diversion Project, with the balance of the cost paid by the Garrison Diversion Conservancy District and the State Game and Fish Department. Secretary Sprynczynatyk explained that if this is done, it is likely the Governor would enter into an agreement with Will & Muys, and that the Conservancy District, the State Game and Fish Department and the State Water Commission would enter into a separate cost sharing agreement.

The Commission members expressed agreement that the retaining of an environmental consultant is a very important step for North Dakota to take in order to answer and satisfy some of the environmental concerns.

It was moved by Commissioner Rudel and seconded by Commissioner Vogel that the State Water Commission obligate $40,000 from the Contract Fund, contingent upon the availability of funds, to retain the firm of Will & Muys as an environmental consultant for the Garrison Diversion Project, with the balance of the cost to be paid by the Garrison Diversion Conservancy District and the State Game and Fish Department.

Commissioners Byerly, Gust, Kramer, Narlock, Rudel, Spaeth, Vogel, and Chairman Omdahl voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

GARRISON DIVERSION PROJECT - MR&I WATER SUPPLY PROGRAM UPDATE (SWC Project No. 237-3)

In May, 1991, an application was submitted to the Bureau of Reclamation for a $2.1 million grant from the drought assistance program approved by Congress. Secretary Sprynczynatyk indicated these funds were recently approved for the North Valley Rural Water Supply Project and an extension to the City of Cavalier for a water supply project. These funds will be made available through the current MR&I Water Supply Program, and are in addition to the FY '91 MR&I funding already received.

Jeffrey Mattern, MR&I Water Supply Program Coordinator, reported there are 120 projects in the difference phases of the MR&I Water Supply Program. This

includes 47 projects in the initial application phase, 34 projects in the preliminary engineering phase, 20 in the feasibility phase, 2 in design and construction, 13 projects have been completed, and 5 applications have been withdrawn.

Mr. Mattern stated that construction is progressing well on McLean-Sheridan Rural Water, Agassiz Water Users, and Langdon Rural Water projects. All of these projects should be completed this year. The evaluation report on a joint project for Ramsey Rural Water, City of Devils Lake, and Fort Totten Indian Reservation is scheduled for completion by August 31.

To assist the Priority System Review Committee, 37 questionnaires were sent to State Water Commission members and Garrison Conservancy District directors. Mr. Mattern indicated that of the 24 questionnaires that have been returned, the majority agreed the greatest emphasis should be on water quantity needs of primary water source, funding should not be based on population, ability to pay should be considered, eligible costs should remain the same, and lawn watering should receive a lower priority. Mr. Mattern said these results are consistent with the current MR&I priority system.

GARRISON DIVERSION PROJECT - CONSIDERATION AND APPROVAL OF MR&I FUNDS FOR CITY OF CAVALIER EXTENSION TO NORTH VALLEY RURAL WATER PROJECT (SWC Project No. 237-15)

Jeffrey Mattern presented a request from the North Valley Water Association and the City of Cavalier for MR&I funding assistance. The project would involve connecting Cavalier to the North Valley system for providing the city with a bulk water supply. Mr. Mattern stated that would be an extension of the previously approved North Valley project.

The City of Cavalier depends on the Renwick Dam for its water supply, which has decreased water levels due to the past few years of drought. The Tongue River is used to transport the water from the dam to the city treatment plant. In addition, the water quality has been a problem with the lower water levels. The city has hauled water the past two winters to help meet their demand. Mr. Mattern said the estimated cost for the extension is $700,000, which would cover the cost of new wells, water reservoir, transmission pipeline and controls.

Mr. Mattern explained that the North Valley project is approved for a 65 percent MR&I grant and 35 percent State Water Commission loan. This extension would require an additional grant of $455,000 and an additional loan of $245,000. The loan interest rate would be a 3 5/8 percent and a maximum term of 25 years. North Valley's total funding would be a grant of $1,291,680 and loan of $695,520.

Comments relative to the project were heard from David Duncan, Mayor of the City of Cavalier, and Ross Brown and Gordon Johnson, representing the North Valley Water Association. The group expressed appreciation to the Commission for approving funds for the project in May, 1991, and urged favorable consideration for the additional funds for the City of Cavalier extension project.

It was the recommendation of the State Engineer that the State Water Commission approve additional funding on the eligible costs for the Cavalier extension to North Valley rural water project in the form of a 65 percent grant, not to exceed $455,000, and that an additional 35 percent loan, not to exceed $245,000, with interest of 3 5/8 percent, a maximum term of 25 years, and other general conditions of the loan program. This recommendation would be contingent upon the availability of funds, that the sponsor continue to meet MR&I program requirements, and project approval by the Garrison Diversion Conservancy District.

It was moved by Commissioner Narlock and seconded by Commissioner Vogel that the State Water Commission approve additional MR&I Water Supply Program funding on eligible costs for the City of Cavalier extension to the North Valley Rural Water Project in the form of a 65 percent grant, not to exceed $455,000, and an additional 35 percent loan, not to exceed $245,000, with interest of 3 5/8 percent, a maximum term of 25 years, and other general conditions of the loan program. This motion is contingent upon the availability of funds, that the sponsor continue to meet MR&I program requirements, and project approval of the Garrison Diversion Conservancy District.

Commissioners Byerly, Gust, Kramer, Narlock, Rudel, Spaeth, Vogel, and Chairman Omdahl voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

GARRISON DIVERSION PROJECT - TRI-COUNTY WATER USERS SUPPLY PROJECT (SWC Project No. 237-17)

Jeffrey Mattern indicated that the feasibility study components are being updated for the Tri-County Water Users Supply Project and that a recommendation for MR&I funding may be presented for the Commission's consideration at a future meeting.

GARRISON DIVERSION PROJECT - PRIORITY SYSTEM REVIEW COMMITTEE (SWC Project No. 237-3)

It was recommended that Chairman Omdahl appoint a representative of the State Water Commission to serve on the Priority System Review Committee to replace William Lardy, who resigned from the Commission. (Subsequently, Lieutenant Governor Lloyd Omdahl appointed Commissioner Rudel.)

GARRISON DIVERSION PROJECT - NORTH DAKOTA WATER SUPPLY DEVELOPMENT PROGRAM POLICY MODIFICATIONS (SWC Project No. 237-3)

Jeffrey Mattern explained proposed modifications for the Commission's consideration relating to the North Dakota Water Supply Development Program Policy pertaining to repayment of interest on loans. Under the current policy, the interest payments begin six months after the initial loan disbursement, but until a project is functioning there is no source of revenue. Therefore, it was suggested that the principal and/or interest payments begin after a project is functionally complete and should be determined by the State Engineer.

It was moved by Commissioner Gust and seconded by Commissioner Rudel that the State Water Commission approve the modifications to the North Dakota Water Supply Program Policy, Policy No. 4, as follows:

4. Loan repayments will be semi-annual. Interest will begin to accrue upon loan disbursements. Principal and/or interest payments will begin after the project is functionally complete as determined by the State Engineer.

Commissioners Byerly, Gust, Kramer, Narlock, Rudel, Spaeth, Vogel, and Chairman Omdahl voted aye. There were no nay votes. The Chairman declared the motion unanimously carried. SEE APPENDIX "A".

GARRISON DIVERSION PROJECT - NORTHWEST AREA WATER SUPPLY/ FORT BERTHOLD INTEGRATED WATER SUPPLY PROJECT UPDATE (SWC Project No. 237-4)

Charles Rydell briefed the Commission members on the status of the Northwest Area Water Supply/Fort Berthold Integrated Water Supply Project. The first draft of the federal legislation for authorization of the project was received in July, 1991. Members of the Advisory Committee membership, as directed by state law, are as follows:

Robert Schempp, City Manager, representing Minot, Chairman
Don Morgan, Natural Resources Director, New Town, Vice Chairman
Lorry Kramer, Commissioner, representing the State Water Commission
Monte Meiers, City Engineer, representing Williston
Clifford Issendorf, Kramer, representing the Water Resource Districts
Gary Hager, Kenmare, Manager, Upper Souris Rural Water, representing rural water systems
Lester Anderson, Minot, representing Garrison Diversion Unit
Ken Shobe, Mohall General Administrator, representing municipalities-at-large
Doris Yri, Palermo, representative-at-large, appointed by the State Engineer

The Advisory Committee held its organizational meeting on July 24, 1991 in Minot and elected Bob Schempp Chairman and Don Morgan Vice Chairman. Draft legislation was reviewed and the following changes were recommended:

1) The legislation should cover all nine northwest counties, including Burke, Divide and Williams; not just those covered by the NAWS/Fort Berthold report. This raises the cost of the project from $175 million to $209 million;

2) Provisions should be included to ensure that the rural water coop will not be left with loan obligations that cannot be met in the event existing customers try to obtain water from NAWS; and

3) Provisions to allow service to communities or counties adjacent to the currently defined project limits should be included.

Mr. Rydell indicated the above recommended changes in addition to several minor changes have been included in a second draft by Senator Conrad's office.

A second meeting of the Advisory Committee has been scheduled for September 4 in Minot, at which time a second draft of the proposed federal legislation will be reviewed, as well as discussion on a shorter more manageable project name, and development strategies to aid in congressional acceptance of the bill.

Secretary Sprynczynatyk briefed the Commission members on discussions with the Three Affiliated Tribes relative to the location of the intake structure for the project. In the original plan, the location of the intake structure for the project is on Lake Audubon which is the closest point on the Missouri River system to Minot, the largest single user in the project. This also results in the lowest cost for the project.

The Three Affiliated Tribes has indicated support for the project, but they have also expressed a desire to have the intake structure located in Lake Sakakawea south of Parshall on the Reservation. Secretary Sprynczynatyk indicated that an engineering analysis was conducted to determine the cost differential between locating the intake structure in Lake Audubon adjacent to Highway 83 and locating it near Parshall. The results of the engineering analysis indicates an increase in project costs of approximately $15 million if the intake structure is located in the vicinity of Parshall on the Reservation. Secretary Sprynczynatyk said the state interests and the City of Minot have expressed their concerns to this proposal because most of the $15 million will be passed onto the non-Indian users because of the formula that has been devised for the construction of the project.

Secretary Sprynczynatyk indicated he met with Don Morgan, Three Affiliated Tribes staff person, to discuss these concerns. It was agreed that a letter be written to the Tribal Chairman expressing the state and the City of Minot's concerns relative to the location of the intake structure near Parshall, which will result in additional costs.

Don Morgan, Three Affiliated Tribes, discussed the alternative which would locate the intake structure in Lake Sakakawea near Parshall on the Reservation. Mr. Morgan indicated the Tribe is supportive of the overall project and expressed the Tribe's desire to work with the state in the development of the project. Mr. Morgan said economic development on the reservation is a major concern to the Tribe. He was in agreement with the recommendations made by the State Engineer in presenting the information on the intake alternatives to the Three Affiliated Tribes Chairman.

STATE WATER MANAGEMENT PLAN UPDATE (SWC Project No. 322)

LeRoy Klapprodt, State Water Commission Planning and Education Division, reported that at the June 24, 1991 meeting, the Commission members were advised that as a result of the second round of public involvement meetings completed in April, the Citizens Advisory Board (CAB) members were updating the list of problems and opportunities that were identified during the state-wide planning process in the early 1980's. CAB members have reviewed and are updating the list of problems and opportunities in their respective areas. The State Water Commission staff will evaluate each of the problems and opportunities identified by the CAB members and others attending the second round of public meetings and will identify a project or a program to address those problems and opportunities.

When the CAB's meet in September and October for the third round of public meetings, board members will review the preliminary results of the problems and opportunities identification and evaluation process. A technical engineering assessment of identified problems and opportunities is being provided by the Bureau of Reclamation.

Mr. Klapprodt discussed the coordination of the State Water Management Plan update process and the Governor's Water Strategy Task Force efforts on water development. A discussion of the Task Force recommendations will be on the agenda of the upcoming meetings.

NORTH DAKOTA WATER STRATEGY TASK FORCE UPDATE (SWC Project No. 1852)

Secretary Sprynczynatyk briefed the Commission members on the activities of the Governor's Water Strategy Task Force. He discussed the report of the Subcommittee on Program Costs, which identified the projects and programs to be completed in the next several years. The report is attached hereto as APPENDIX "B".

The report from the Subcommittee on Program Costs was submitted to the Subcommittee on Financing to develop a proposal that the Task Force could consider to fund the projects and programs identified. The report of the Subcommittee on Financing is attached hereto as APPENDIX "C".

The proposal adopted by the Governor's Water Strategy Task Force will be presented to the citizens in a series of public meetings held throughout the state. The proposal will outline a plan that would increase the state's participation in the Garrison Project and would allow for

additional development of the water resources of the state. The plan will require an increase in biennial appropriations by the Legislature and it will require water supply project beneficiaries to repay 35 percent of the project costs. Financing the development outlined by the Task Force will require an annual appropriation of approximately $22 million to the Resources Trust Fund until the year 2000. Income from repayments made by sponsors of projects completed in the interim, when combined with the State Water Commission Contract Fund, will sustain a modest level of development for many years.

Secretary Sprynczynatyk stated the Task Force directed the State Engineer and staff to explore the possibility of a water use fee, or tax, which would be collected from water users. During the past 20 years, there have been several attempts to devise a system of water use fees that could be collected from users and applied to water development programs so that state water needs would be consistently met. Secretary Sprynczynatyk said many complexities become involved in the effort to treat all users fairly.

Commissioner Gust discussed the possibility of a water use fee proposal and it said it is very important that such a proposal receive support from the water users. Commissioner Gust said "if we are going to come up with a package that will sell to the voters of North Dakota, it would be better if there was a tax on the water used instead of shifting the burden of financing these projects over to income tax or to a sales tax."

Secretary Sprynczynatyk distributed and discussed a report prepared by staff on the program benefits to determine what the benefits would be from the development of the recommended projects. The Program Benefits report is attached hereto as APPENDIX "D".

DROUGHT EMERGENCY LIVESTOCK WATER SUPPLY PROJECT ASSISTANCE PROGRAM (SWC Project No. 1855)

Cary Backstrand, State Water Commission Water Development Division, briefed the Commission members on the progress of the Drought Emergency Livestock Water Supply Project Assistance Program. Mr. Backstrand said 81 individuals have inquired into the program and have been sent information packets and application, and 25 individuals have applied for assistance. Of the 25 applicants, 19 projects have been approved, 4 have been denied which were dugout projects where the applicants wanted to clean out their dugouts; and 2 projects are being processed to determine eligibility. Two projects have been completed and cost share is being determined from submitted billings.

DROUGHT EMERGENCY LIVESTOCK WATER SUPPLY PROJECT ASSISTANCE PROGRAM - ADMINISTRATIVE PROGRAM RULES AMENDMENTS (SWC Project No. 1855)

A hearing was held concerning the proposed administrative rules for the Drought Emergency Livestock Water Supply Project Assistance Program on July 29, 1991. Bob Bradley, Attorney General's office, conducted the hearing with four State Water Commission staff personnel in attendance. Minor word changes were recommended in addition to a letter from John Fjeldahl, which was made a part of the hearing record, requesting that paragraph 4 of Section 5, Non-Eligible Items, be deleted. Four people on the Advisory Committee, which put together the interim rules, were contacted and had no objections to the change suggested by Mr. Fjeldahl, provided we stayed within the confines of the statute passed by the Legislature.

Cary Backstrand discussed the suggested changes as follows:

1) The word "eligible" be inserted between the words "the cost" in paragraph 4 of Section 4, and that an "s" be added to the end of the word "cost".

2) That paragraph 4 of Section 5, be changed by striking the words after "prior to" and adding "July 1, 1991, and a new paragraph 5 be added, which states: "water supply projects started after December 31, 1991, without prior approval of the State Engineer." The remaining paragraphs should be renumbered accordingly.

It was the recommendation the State Engineer that the State Water Commission approve the changes to the program rules as proposed.

It was moved by Commissioner Vogel and seconded by Commissioner Byerly that the State Water Commission approve the amendments to the administrative rules for the Drought Disaster Water Supply Project Assistance Program as recommended by the State Engineer.

Commissioners Byerly, Gust, Kramer, Narlock, Rudel, Spaeth, Vogel, and Chairman Omdahl voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

The Program administrative rules, as amended, are attached hereto as APPENDIX "E".

It was recommended that information pertaining to the Drought Emergency Livestock Water Supply Project Assistance Program be provided to the County Agents and the Soil Conservation Service districts for local distribution.

DEVILS LAKE MANAGEMENT PROJECT UPDATE (SWC Project No. 1712)

At the June 24, 1991 meeting, the Commission members were advised that a special task force of local interests was created to support the efforts of the Devils Lake Citizens Advisory Board. The group will produce the Devils Lake Basin Management Plan, which is intended to identify and describe concepts and methods by which agriculture, fish and wildlife, and recreation interests can incorporate workable solutions for the basin's water quantity and quality problems as well as promote peace and harmony among the interests.

LeRoy Klapprodt reported on the activities and progress of the task force. Four major sectors in the Devils Lake Basin have been identified: agricultural, fish and wildlife, recreational and economic development. The task force has identified the needs of each sector and recommendations have been drafted addressing those needs. A report of the Devils Lake basin-wide management plan has been submitted to the Corps of Engineers for review.

MISSOURI RIVER UPDATE (SWC Project No. 1392)

Secretary Sprynczynatyk reported that the lawsuit filed by North Dakota, South Dakota and Montana over the Corps of Engineers management of the Missouri River remains in the discovery state. In the discovery period, both sides use various pre-trial devices such as depositions or interrogatories. These devices are designed to help exchange facts and information each party has on the case to assist both sides in trial preparations. The trial has been scheduled for June 8, 1992.

Secretary Sprynczynatyk stated that the Missouri Basin States Association is scheduled to meet on August 26 and 27, 1991 to consider a proposed plan on the Corps of Engineers 1992 Missouri River Annual Operating Plan.

SOURIS RIVER FLOOD CONTROL PROJECT UPDATE (SWC Project No. 1408)

Secretary Sprynczynatyk briefed the Commission members on the Souris River Flood Control Project. Construction on the Rafferty Dam is nearly complete. A court decision has delayed construction of the Alameda Dam, although the Provincial Government in Saskatchewan was successful in obtaining an agreement to continue construction of the Alameda Dam to a point where it would be safe from a dam safety standpoint. Construction on the Alameda Dam is progressing under the agreement, but completion of the project is pending on the required approvals.

ATMOSPHERIC RESOURCES BOARD PRESENTATION

At the June 24, 1991 Commission meeting, the relationship between the State Water Commission and the Atmospheric Resource Board was discussed and it was agreed that at a future meeting a presentation be made regarding the Atmospheric Resource Board.

Secretary Sprynczynatyk discussed an Attorney General's opinion relative to the relationship between the State Water Commission and the State Water Commission pursuant to Section 61-04.4-06 of the North Dakota Century Code. The Attorney General's opinion is attached hereto as APPENDIX "F".

Bruce Boe, Director of the Atmospheric Resource Board, presented the background, organization and programs relating to the Atmospheric Resource Board. Mr. Boe's presentation and informational material is attached hereto as APPENDIX "G".

CONTINUED DISCUSSION RELATIVE TO POLICY FOR REIMBURSEMENT FOR STATE WATER COMMISSION MEMBERS

At the May 3, 1991 meeting, it was the general consensus of the Commission members that a policy be adopted that would allow members to attend regional meetings in the state; the Commission would pre-approve meeting attendance; and, that Chairman Omdahl could decide attendance if the Commission was not scheduled to meet before an upcoming event. In making a decision on attendance at meetings, Commissioners would have to be considered official representatives of the Commission.

The Chairman also requested that prior to the June 24, 1991 Commission meeting, members provide the State Engineer's office with a list of meetings they consider to be legitimate and would be considered official business of the Commission.

At the June 24, 1991 meeting, the following meetings were presented for consideration that could be considered official business of the Commission: Northwest Area Water Supply Project; Citizens Advisory Boards; Upper Missouri Water Users Association; North Dakota Water Users; and, the North Dakota Wetlands Trust.

Following discussion, Chairman Omdahl indicated that he and the State Engineer would review the draft policy that was developed by the committee and presented for review at the Commission's May 3, 1991 meeting.

FEDERAL WETLANDS DELINEATION (SWC Project No. 1810)

Secretary Sprynczynatyk informed the Commission members that the federal Administration has announced what it calls a "significant" step toward President Bush's goal of no net loss of wetlands with release of a new wetlands policy that will strengthen wetlands research, improve satellite system identification of wetlands, and significantly enhance a federal wetlands acquisition program. He said the policy also proposes revisions to the 1989 federal "Manual for Identifying and Delineating Wetlands", which will, if approved, remove 10 to 30 percent of the wetlands currently protected under the 1989 manual.

Secretary Sprynczynatyk said some of the revised criteria for wetland delineation are requirements that the land have water standing on it for at least 15 consecutive days annually, or be saturated to the surface for 21 consecutive days. Another criterion involves plant species that would rate plants on a 1-5 scale and declare that an area meets wetlands criteria where the "weighted average of plant life is less than 3.0".

Secretary Sprynczynatyk said the proposed revisions do not change the definition of wetlands, but rather they are intended to tighten the evidence requirements for the parameters in the definition of wetlands. The Environmental Protection Agency is soliciting comments on the proposal by October 15. Governor Sinner has directed state agencies to provide comments to the Governor's office for coordination and submission as a state position.

In discussion of the wetlands delineation proposal, Commissioner Spaeth suggested that wetland-free areas need to be defined and the policing of these areas should be eliminated. This could eliminate a lot of the controversy that currently exists between the local people and the federal agencies.

Secretary Sprynczynatyk indicated that the North Dakota Wetlands Management Committee, chaired by Governor Sinner, has gone on record in support that the state assume authority and administer the Section 404 program of the Flood Control Act under the guidance of the Environmental Protection Agency. The Corps of Engineers is currently administering the program. The State of Michigan is the only state that is currently administering the program. Meetings have been held with state and federal agencies to discuss and review the proposal.

CONSIDERATION AND APPROVAL OF RESOLUTION NO. 91-8-444, IN APPRECIATION TO WILLIAM LARDY (SWC Resolution No. 91-8-444)

It was moved by Commissioner Byerly and seconded by Commissioner Gust that the State Water Commission approve Resolution No. 91-8-444, In Appreciation to William Lardy.

Commissioners Byerly, Gust, Kramer, Narlock, Rudel, Spaeth, Vogel, and Chairman Omdahl voted aye. There were no nay votes. The Chairman declared the motion unanimously carried. SEE APPENDIX "H".

CONSIDERATION AND APPROVAL OF RESOLUTION NO. 91-8-445, SWC AUTHORIZATION FOR STATE ENGINEER AND SECRETARY TO EXECUTE BINDING AGREEMENTS (SWC Resolution No. 91-8-445)

Secretary Sprynczynatyk stated that a recent review of North Dakota law makes it appear that the State Water Commission is a public corporation. By law, only a corporation's President or Chairman can obligate the the entity unless that authority has been delegated to someone within the agency, such as its' Secretary.

It was the recommendation of the State Engineer that in order to fully comply with the law that the State Water Commission take formal action, by resolution, authorizing the Secretary and State Engineer to sign agreements and obligate the Commission based upon actions of the Commission as well as the policies of the Commission.

It was moved by Commissioner Spaeth and seconded by Commissioner Kramer that the State Water Commission approve Resolution No. 91-8-445, Authorizing the State Engineer and Secretary to Execute Binding Agreements.

Commissioners Byerly, Gust, Kramer, Narlock, Rudel, Spaeth, Vogel, and Chairman Omdahl voted aye. There were no nay votes. The Chairman declared the motion unanimously carried. SEE APPENDIX "I".

CONTINUED DISCUSSION REGARDING PROPOSED CORPS OF ENGINEERS REORGANIZATION

At the June 24, 1991 meeting, the Commission members approved a resolution regarding the proposed reorganization of the Corps of Engineers.

Secretary Sprynczynatyk stated that the resolution was submitted to the Congressional Delegation and responses indicate that the Corps is not going to be reorganized but will require some specific congressional actions. He said the Congressional Delegation expressed appreciation for the resolution and indicated they would work towards preventing that reorganization from occurring.

NEXT STATE WATER COMMISSION COMMISSION MEETING

The next meeting of the State Water Commission has been scheduled for October 21, 1991 in Dickinson. The meeting will be held in conjunction with the North Dakota Water Users and Water Resource Districts annual convention and the Southwest Pipeline Project "Commissioning".

There being no further business to come before the State Water Commission, it was moved by Commissioner Byerly, seconded by Commissioner Kramer, and

unanimously carried, that the State Water Commission meeting adjourn at 12:00 noon.

Lloyd B. Omdahl
Lieutenant Governor-Chairman

SEAL

David A. Sprynczynatyk
State Engineer and Chief
Engineer-Secretary

August 22, 1991

NORTH DAKOTA STATE WATER COMMISSION

REGISTER

ATTENDANCE AT State Water Commission Meeting

DATE August 22, 1991 PLACE Bismarck, ND

PROJECT NO.

Your Name	Your Address	Who do you Represent? (Or Occupation)
Ray Mount	Bismarck	N. Dak. Rural Water
Willie Mertel	Dickinson	S.W water Authority
Henry Anderson	DICKINSON	S.W water authority
Kris Thompson	Dickinson	SWA
Madylin Gyberg	New Town, ND	TAT MR&I Water Project
Bruce McMillan	Bismarck	BW/BEC Engineers
Karl Rangeard	Fargo	Houston Engineering
Donald Morgan	Newtown, N.D.	Three Affiliated Tribes
Mike Beesam	Petersburg, N.D	Tri County Water Users
LEE RAGAN	BISMARCK, ND	U.S. FISH & WILDLIFE SERVICE
Steve Dyke	Bismarck	N.D. Game & Fish
Army Smith	Bismarck	OMB
Gordon Johnson	Cavalier, N.D.	North Valley Water Assn, Inc.
Ross Brown	Bathgate N.D.	North Valley Water Inc.
Jeffrey Mattern	BISMARCK	SWC

SWC Form No. 83

(500/9-84)

APPENDIX "A"

8-22-91

NORTH DAKOTA WATER SUPPLY DEVELOPMENT PROGRAM

PROGRAM POLICY

1. Financial assistance for Water Supply Development may be disbursed as a combination grant and loan.

2. The grant:loan ratio will be 65:35 percent. Grant only or loan only disbursements may be made. Grant only disbursements will not exceed 65 percent of eligible project costs. Eligible costs for the grant:loan program include construction, engineering, legal, and right-of-way costs.

   If a 65 percent grant only disbursement is made, the 35 percent loan money will be made available as a loan to another project. If a loan only disbursement is made, the corresponding 65 percent grant money will be made available as a grant to another project. Additional loan money will be contingent on the availability of funds.

3. Loan conditions are a 25-year term and interest rate of either 3.625 percent or 3.5 percent below the quarterly FmHA market rate in effect at the time loan approval is given, whichever is greater. FmHA Market interest rates are adjusted quarterly (January, April, July, and October).

4. Loan repayments will be semi-annual. Interest will begin to accrue upon loan disbursements. Principal and/or interest payments will begin after the project is functionally complete as determined by the State Engineer.

5. Current federal and state MR&I requirements must be met.

6. Sponsors will be required to establish a reserve escrow account for making semi-annual payments with one payment in reserve. Sponsors have 5 years to accumulate funds for the reserve payment.

7. Sponsors will also be required to budget for and establish an account for emergencies and extensions (E&E) and capital replacement costs. The account will contain not less than six months of O&M costs and sponsors will have 5 years to accumulate E&E funds. The account will also contain money for capital replacement costs, with the amount required to be a percentage of total project costs (e.g. 20 percent) and will be determined by the State Engineer. Sponsors will have 10 years to accumulate the necessary money in the account for capital replacement costs.

8. Financial documentation will be required from project sponsors. Existing systems will be required to provide the previous 5 years of balance sheets and financial statements. New systems will provide information on actual service commitments, projected rate structures, and estimated O&M costs.

9. The Bank of North Dakota may administer the program's financial operations.

8-22-91

NORTH DAKOTA WATER SUPPLY DEVELOPMENT PROGRAM

PROGRAM OBJECTIVES

The objectives of the North Dakota Water Supply Development Program are:

1. To continue providing service comparable to what is currently available.

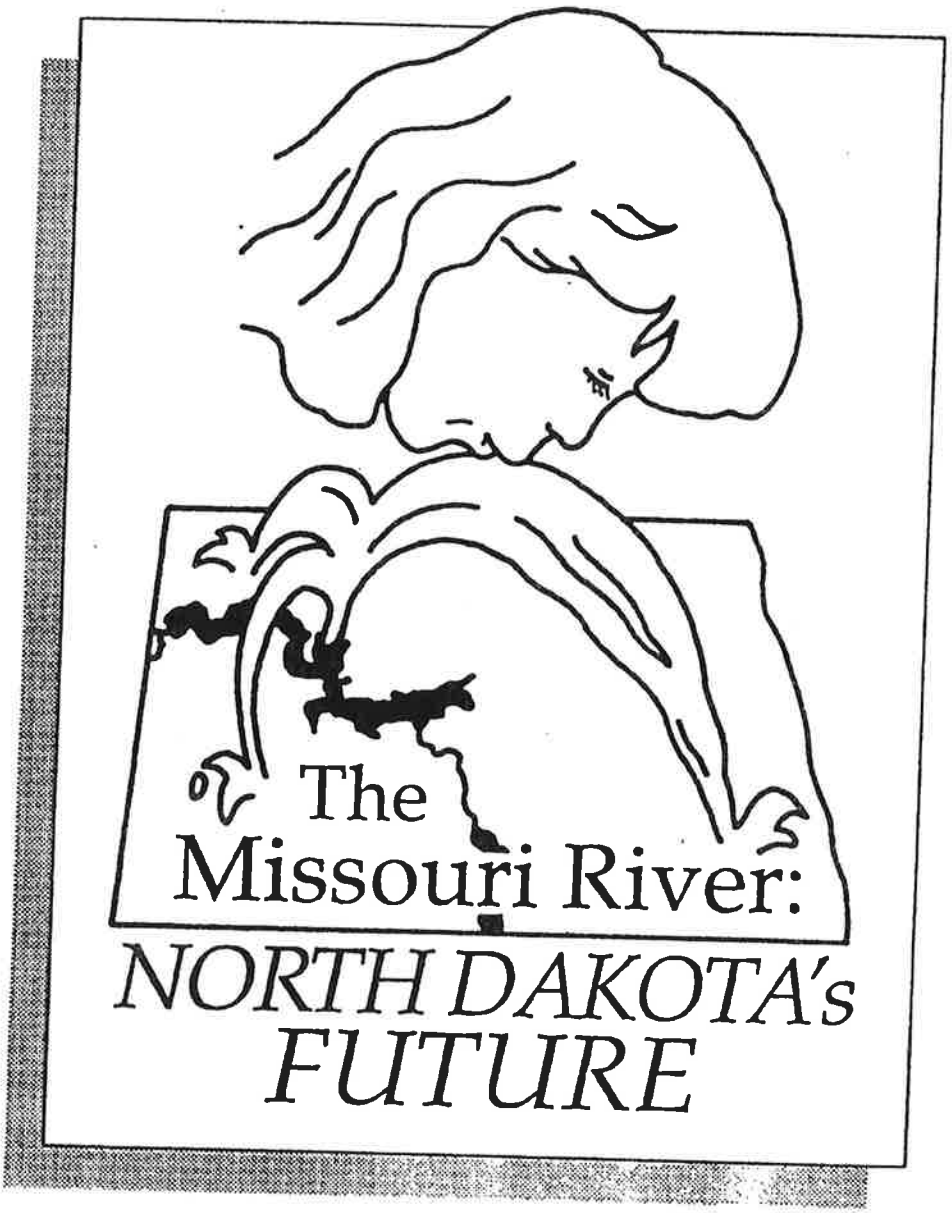
2. To allow and encourage sponsors to obtain project financial assistance from a single source with uniform obligations.

3. To have the program sustain itself as a continuous funding source after the $200 million federal MR&I program is exhausted.

APPENDIX "B"

Governor's Water Strategy Task Force

Subcommittee on Program Costs



1991

Governor's Water Strategy Task Force
Subcommittee on Program Costs

July 23, 1991

David S. Sprynczynatyk
Task Force Vice Chairman

Vernon Fahy
Task Force Executive Secretary

C. Emerson Murry
Task Force Member

Dale Frink
Task Force Staff

Governor George A. Sinner created the Water Strategy Task Force by Executive Order, dated April 26, 1991. The Order designated Lieutenant Governor Lloyd Omdahl as chairman.

The Governor's Water Strategy Task Force has been charged with responsibility for recommending a water supply development program to the Governor by October 1, 1991. The Task Force is to examine issues related to the state's rights to a share of the water of the Missouri River, the critical water quality and quantity concern of rural and urban areas and to develop recommendations concerning the financing of water delivery systems to meet short and long-term future needs, including the development of a comprehensive state water policy to be recommended to the Administration and Congress.

The majority of urban and rural water supplies in the state are inadequate to fully satisfy needs or are in violation of one or more of the State Health Department standards. In some areas, residents are hauling water a considerable distance for residential use. Over 100 cities and rural systems have applied for financial assistance under the state's Municipal, Rural and Industrial Program. Seven cities recently received notices of violation from the Environmental Protection Agency, stating that they must comply with federal fluoride standards for drinking water, or be subject to a fine of up to $25,000 per day. It is reasonable to expect that compliance with other recently enacted federal water quality standards will cause additional cities to seek state aid for costs of compliance.

Although the problems of our urban and rural areas are critical, there is an overriding concern related to our ability to maintain our rights to the use of the waters of the Missouri River, the only surface water source available to meet the long-term needs of the state.

The idea of distributing the water of the Missouri River throughout the state has been the basis of every water plan developed since Major John Wesley Powell addressed our Constitutional Convention in 1889. He urged the delegates to vest control of its waters in the hands of the people and to distribute them throughout the state to satisfy people and to negate the impacts of frequent droughts.

When the Garrison Diversion Project was authorized as a part of the Flood Control Act of 1944, it seemed that Major Powell's recommendations would be realized in North Dakota.

The Flood Control Act of 1944 included the Pick-Sloan Plan for development and control of the Missouri River. The drought of the 1930s was followed by a series of disastrous floods in the Missouri Basin and the region pleaded for federal assistance. The United States Army Corps of Engineers introduced a plan focused on flood control and channel improvement for navigation in the lower Missouri (Pick Plan). The United States Bureau of Reclamation presented a plan calling for irrigation development and

land reclamation (Sloan Plan). Both plans included installation of hydroelectric facilities at some of the dams.

Congress combined the two plans into the most comprehensive water development program of its kind. All of the major water uses within the enter basin were included in the plan which was **"to secure the maximum benefits for flood control, irrigation, navigation, power, domestic and sanitary purposes, wildlife and recreation."**

In the 47 years since enactment of the Pick-Sloan Plan, flood control efforts and hydropower production have yielded the greatest benefits. The Corps of Engineers estimates that the main stem dams and levees have prevented approximately $4.5 billion in flood damages, primarily in the lower basin since closing the last main stem dam. In addition, thousands of acres of now protected flood plains in the lower basin have been developed into a bonanza of commercial, industrial and agricultural uses.

Hydropower development has far exceeded the capacities in the original design. Pick-Sloan facilities have annually produced in excess of 11 billion KWH of electricity worth about $160 million. Nearly all of the power is produced in Montana, Wyoming and the two Dakotas, but two-thirds of the power is used in Minnesota, Colorado, Iowa and Nebraska.

Navigation development is a different story. The planned annual tonnage of 20 million tons has never been realized. It reached a peak of 3.3 million tons but has settled generally into the 2 million ton capacity in recent years. In spite of the meager tonnage and exorbitant per ton mile cargo costs, the Corps continues to release large quantities of water for navigation purposes.

Irrigation development, the component of the project which was to repay the upper basin states for their losses in impounding floodwaters, has not been generously treated as has the flood control and navigation components. North Dakota has irrigated less than one percent of the acreage authorized, 9,000 acres, but has permanently flooded 584,000 acres to impound water for downstream flood control.

The Garrison Diversion Project in our state, although authorized in 1944 with a 1 million acre irrigation component, reauthorized in 1966 with a 250,000 acre irrigation component, and reformulated in 1985 with 130,000 acres of irrigation has yet to deliver its first gallon of Missouri River water through the length of its' principal supply works which were placed under construction in 1968.

In Fiscal Year 1991, the Administration recommended no further funding for the project, but Congress did appropriate some limited funding and in FY 1992 the Administration and Congress approved some funds, but did not approve funds for the continuation of construction of the principal supply works for *non-irrigation related* components of the project.

This ban on further project development has proponents and state officials very concerned because it not only deprives the state of its best opportunity for economic development but it also jeopardizes the state's legal claim to sufficient rights to the Missouri River to satisfy its long-term needs. The Missouri River constitutes 96 percent of the flowing surface waters available for distribution in the State (see Figure 1). Although we have an early authorization to use Missouri waters, the Prior Appropriation Doctrine in effect throughout the states west of the Missouri, mandates that the water must be put to beneficial use before a legal water right is established. This Doctrine also provides that "first in time is first in right" and that "beneficial use is the measure of that right".

Thus, it is readily apparent that we must put Missouri River water to use in satisfying our critical water needs and that we cannot depend entirely on the federal government for financial assistance. We cannot allow our claim to waters of the Missouri River to be usurped by other entities who may be in a better financial position to develop water projects.

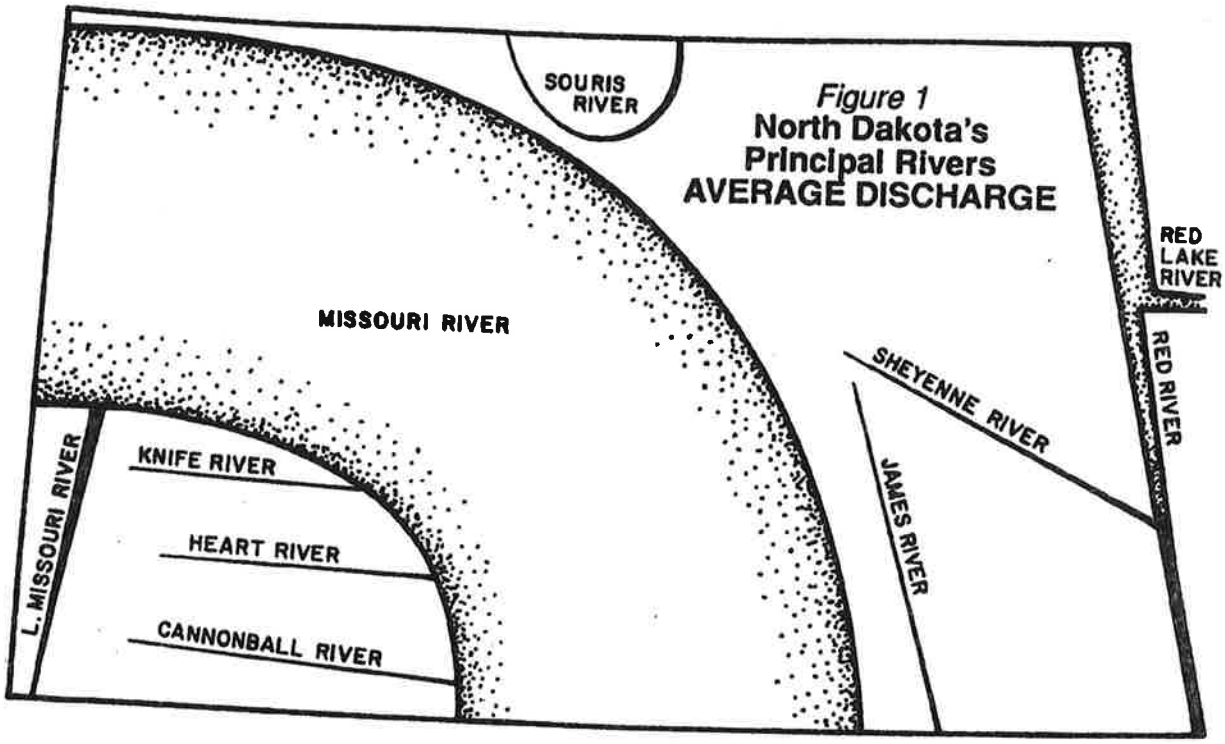


Figure 1
North Dakota's Principal Rivers AVERAGE DISCHARGE

The critical needs of our rural and urban areas, the need to insure agricultural uses against the drought, and the very real danger of losing the right to use the only surface water source available for a state-wide water distribution system are the principal factors which the Water Strategy Task Force must consider in developing a recommendation to the Governor. The creation of a Water Supply Development Fund will enable the state to use its funds to build critically needed water facilities. It will also allow state funds to be used to match federal funds where necessary to assist in building certain Garrison Diversion Project components essential to completing a state-wide water distribution system.

RECOMMENDED PROGRAMS

The Comprehensive State Water Management Plan, prepared under the direction of the State Engineer, attempts to reflect the needs of residents in each of the major drainage basins in the state. Information concerning the needs was gathered at public hearings held throughout the state and from information provided by various public interest groups, including the North Dakota Water Users Association, the North Dakota Water Resource Districts Association, the Garrison Coalition, the West River Joint Boards and the Northwest Area Water Supply Advisory Committee. Detailed information regarding the needs of the Garrison Diversion Conservancy District was obtained through meetings with directors and staff of the District.

After reviewing the Comprehensive Plan and the information gathered directly by the Water Strategy Task Force from hearings conducted in eight locations throughout the state, the following list of projects and expenditures are necessary to satisfy our needs through the year 2000 and beyond:

I) GARRISON DIVERSION PROJECT:

A) Municipal, Rural and Industrial Water Supply Program (MR&I):

The Garrison Diversion Unit Reformulation Act of 1986 reauthorized a modified version of the Garrison Diversion Unit. Section 5 of this Act included provisions for the planning and

construction of municipal, rural and industrial water supply systems throughout the state and it included provisions for substantial recreation and wildlife development to insure that public and environmental needs could be met. The Act authorized the sum of $200 million of federal funds with the stipulation that the total project costs be shared by the federal government (75 percent) and state and/or local entities (25 percent). The 1986 Act authorized the Southwest Pipeline Project as an eligible project for MR&I funding. Thus far, approximately $54 million has been spent on that project, including $22 million of State funds. An additional $80 million will be required to complete the project.

At present, nearly 120 applications have been received for MR&I funding. The cost of these projects total over $250 million. In addition, the need for assistance is expected to increase as the communities are forced to meet future EPA drinking water quality standards. It is expected that an annual expenditure of at least $10.8 million will be required to satisfy these MR&I needs. The $200 million Garrison authorization will not meet all of these needs.

Estimated Expenditures (1992-2000) — $98 Million

B) Principal Supply Works:

1) Mid-Dakota Reservoir:

The Mid-Dakota Reservoir is needed to link the existing McClusky and New Rockford Canals. The reservoir is truly the heart of the Garrison

Diversion Project and it is the key feature for moving Missouri River water eastward to the James, Sheyenne and Devils Lake watersheds.

Mid-Dakota Reservoir is located at the same site as the original Lonetree Reservoir. However, there are several major differences between the two reservoirs. The 6,800-acre Mid-Dakota is much smaller than the 21,000-acre Lonetree Reservoir and, in addition, Mid-Dakota has been redesigned to greatly enhance its wetlands, wildlife and environmental aspects. A major feature includes a small pipeline system to wetlands in the upper reservoir to allow the wetlands to be operated at optimum levels.

The land has already been acquired for the Mid-Dakota Reservoir. In addition, the foundation for the dam has been completed along with several other key components. The remaining cost of the Mid-Dakota Reservoir, including the environmental enhancement features, is $35 million. It is expected that construction on the Mid-Dakota Dam could begin in the year 1993 and be completed in the year 1996.

Estimated Expenditures (1993-1996) — $35 Million

2) Canal Maintenance and Rehabilitation:

Rehabilitate and maintain the McClusky Canal (73.6 miles) at a minimum capacity of 500 cubic feet per second (cfs). Rehabilitation would include repair of existing earthen slides, prism cleaning, beach belting and rock riprap repair, and lining repair. This would be done in addition to normal OM&R. Complete the New Rockford Canal (45 miles). This includes 11 miles of P.V.C. lines, pipe drains, and canal belting. The canal work could begin in the year 1992 and end in the year 1996.

Estimated Expenditures (1992-1996) — $20.4 Million

3) Construct James River Feeder Canal and Stabilize Several Reaches of James River:

The feeder canal is 2.6 miles in length and includes two drop structures and a bifurcation

structure. Minor stabilization work is necessary along approximately 190 miles of the James River channel. The work on the James River could begin in the year 1992 and end in the year 1994.

Estimated Expenditures (1992-1996) — $ 6.8 Million

4) Sheyenne River Treatment Plant Devils Lake Pipeline:

The treatment plant would be a microscreening/ozonation plant with an eight-mile pipeline to deliver water into the Sheyenne River north of Harvey. A pipeline would be extended north from the New Rockford Canal to the West Bay of Devils Lake. The pipeline would be designed to carry water both to and from Devils Lake. The pipeline to Devils Lake will have to be authorized by Congress before design can begin. This schedule includes testing of the proposed design of the treatment plant, final design of the plant, and preparation of the EIS statement for the delivery of water to the Sheyenne River and Devils Lake. The design construction for the delivery of water to the Sheyenne River and Devils Lake could begin in the year 1992 and end in the year 1996.

Estimated Expenditures (1992-1996) — $75.5 Million

5) Turtle Lake Area Irrigation Development:

In response to a petition signed by landowners living in the vicinity of Turtle Lake, the State Engineer approved formation of an irrigation district encompassing 13,700 acres of land as authorized by the Garrison Diversion Reformulation Act of 1986. The McClusky Canal will be the water supply source. This will be a multi-purpose water project which will also supply water for wildlife enhancement. Construction could begin in 1994 and end in 1997.

The construction for the Turtle Lake Irrigation area could begin in the year 1994 and end in the year 1997.

Estimated Expenditures (1994-1998) — $34 Million

6) Williston Area Irrigation Development:

Interest is very high in the Williston area in the creation of an irrigation district that could serve approximately 10,000 acres. This area has suffered the loss of one irrigation district due to increased river stages caused by the silting in of large areas upstream of Williston. Corps of Engineers estimates show silt accumulations of approximately 47 million tons annually in the headwaters of Lake Sakakawea. A second irrigation area is presently suffering extensive damage due to high water tables. The construction of the Williston Irrigation area could begin in the year 1998 and would end in the year 2000. Project design will include consideration of wildlife values.

Estimated Expenditures (1998-2000) — $25.0 Million

II) SOUTHWEST PIPELINE PROJECT:

The Southwest Pipeline Project is a water supply system to furnish Missouri River water to 20 cities and 3 rural water organizations in southwestern North Dakota. The water will be diverted from Lake Sakakawea. The pipeline is essentially complete to Dickinson but the pipelines to the small communities and rural users have not been constructed. When completed, these lines will serve those communities that have received notice of violations from the Environmental Protection Agency. Construction of the Southwest Pipeline Project could continue, and the project would be completed in the year 1998.

Estimated Expenditures (1992-1998) — $78.8 Million

III) CONTRACT FUND:

This fund, which was established in the 1940s, allows the State Water Commission to cost share with local sponsors on a wide variety of engineering projects and to participate in hydrologic data collection programs. Engineering construction projects include water supply facilities, recreation projects, engineering projects, water management projects and flood control projects. Projects vary from relatively small undertakings to large projects such as the Sheyenne River Flood Control, in which local, state and federal agencies have cooperated to construct two major diversion canals to bypass flood-waters around the West Fargo-Horace area. The last phase of this project will be construction of a dam on the Maple River. The projects can be developed for multiple purposes including wildlife and recreation enhancement.

Estimated Expenditures (1992-2000) — $27.0 Million

IV) NORTHWEST AREA WATER SUPPLY:

The area included in this project includes the Fort Berthold Indian Reservation and 9 counties in the north central part of the State. Federal funding will be requested as a joint undertaking with the Fort Berthold Tribal Council.

The NAWS/Fort Berthold Integrated water supply project can be defined as a piped, potable water distribution system for the project area. Except for two sub-areas on the Fort Berthold Reservation, Mandaree and Twin Buttes, the system is supplied from Lake Audubon. The major users on this system would include Minot (which also services the Minot Air Force Base and North Prairie Rural Water); Upper Souris and All Seasons Rural Water Districts; the large cities of Garrison, Kenmare, Mohall, Bottineau, New Town and Stanley; all of the Fort Berthold Indian Reservation; and, several small cities not presently served by rural water. Construction of the NAWS project could begin in 1995 and end in the year 2003.

Estimated Expenditures (1995-2003) — $176.3 Million

V) WATER SUPPLY DEVELOPMENT FUND:

Because the MR&I needs are expected to continue indefinitely in the future, an on-going program is needed. The program would be created by establishing a 65 percent grant-35 percent loan concept for MR&I projects. The repayments from the loans would go into a fund for use on new multi-purpose water management projects such as the Burleigh-Kidder project, a project that will enhance water management capabilities at Long Lake National Wildlife Refuge, stabilize flows in Apple Creek, provide additional water for McKenzie Slough, and municipal supplies for several communities. It is anticipated that this fund would require approximately $10 million annually until the year 2000, after which it would become self-sustaining. After the year 2000, the fund would be sufficient to allow for an annual expenditure of $11.7 million.

Estimated Annual Expenditure (2001-2016) — $11.7 Million

SUMMARY AND CONCLUSIONS

It has become increasingly apparent over the last 10 to 15 years that the federal administration and Congress believe little is owed this state for its losses in complying with the terms of the 1944 Flood Control Act. In spite of the multi-million dollar annual benefits gained by the federal treasury due to the existence of the Garrison Reservoir on 584,000 acres of State and Indian lands, North Dakota has been unable to secure adequate federal

funding for timely construction of the authorized Garrison Project and for other needed water development programs.

It is clearly evident that the state must invest additional funds in water programs, including certain components of the Garrison Diversion Project, if it is to meet economic development goals and provide municipal, rural and industrial water supplies. Recently the State of Utah proposed a matching cost sharing program, which has been approved by the US House of Representatives, permitting the Central Utah Project to go forward. A similar program may be needed for the Garrison Diversion Project.

After careful study of available information, including information given the Water Strategy Task Force during the public hearing process, this committee has determined that during the period 1992-1999, additional revenue of $22 million plus the currently authorized revenue to the Resources Trust Fund and income from project loan repayments and other project revenues would be adequate to meet the water program needs of the state through the year 2016 and beyond.

The following tables display the program elements, the amount of federal and state funds needed for each, and the totals through the year 2000 and 2016:

Short-Term Development Through Year 2000

	(MILLIONS)		
	FEDERAL	STATE	TOTAL
MR&I Program	$63.8	$34.2	$98.0
Mid-Dakota Reservoir	22.8	12.2	35.0
Canal Maintenance and Rehabilitation	13.3	7.1	20.4
James River	4.4	2.4	6.8
Sheyenne River and Devils Lake	49.0	26.5	75.5
Turtle Lake Irrigation	22.1	11.9	34.0
Williston Irrigation	16.3	8.7	25.0
Southwest Pipeline Project	58.3	20.5	78.8
Contract Fund	—	29.8	29.8
Northwest Area Water Supply(1)	80.0	13.7	93.7
Water Supply Development Fund(2)	—	80.0	80.0
TOTALS	$330.0	$247.0	$577.0

1 Northwest Area Water Supply construction starts in the year 1996 and is completed in 2004.
2 Approximately $9 million per year will go into the Water Supply Development Fund to create a self-sustaining fund for future MR&I projects.

Long-Term Development Beyond Year 2001 to Year 2016

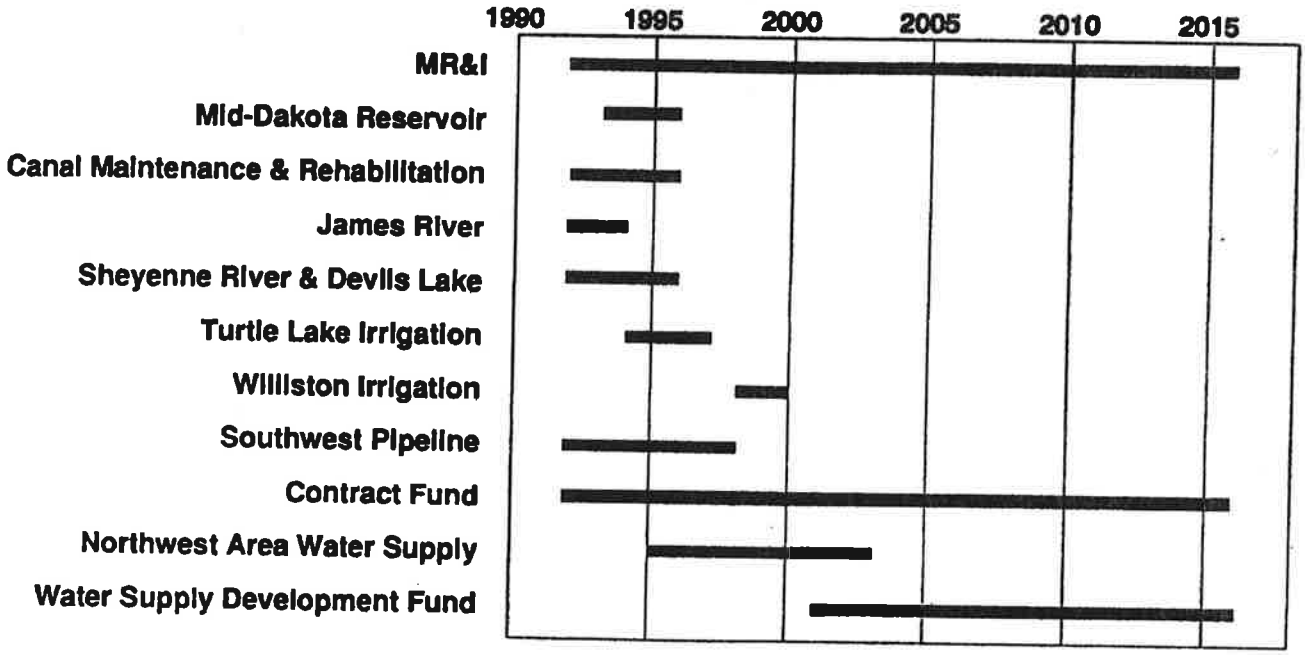
	(MILLIONS)			
	FEDERAL	NEW STATE	REPAYMENTS & INTEREST(1)	TOTAL
MR&I	$27.8	$—	$160.2	$188.0
Contract Fund	—	56.02(2)	16.7	72.7
Northwest Area Water Supply	70.0	—	12.6	82.6
TOTALS	$97.8	$56.0	$189.5	$343.3

1 Because of loan repayments and interest revenue to the Water Supply Development Fund, the fund remains nearly constant and allows for an annual expenditure of approximately $11.7 million.
2 Contract Fund appropriations would come from the Resources Trust Fund.

Figure 2 shows the proposed schedule for development between the year 1992 and 2016:

Figure 2

North Dakota Water Development Schedule



In presenting this information to the legislators and the general public, every effort should be made to explain factually the critical nature of this state's water supply needs and how they can be met through this program. The rains we have received this spring have provided a welcome respite but have not contributed materially to reducing the seriousness of our water supply situation.

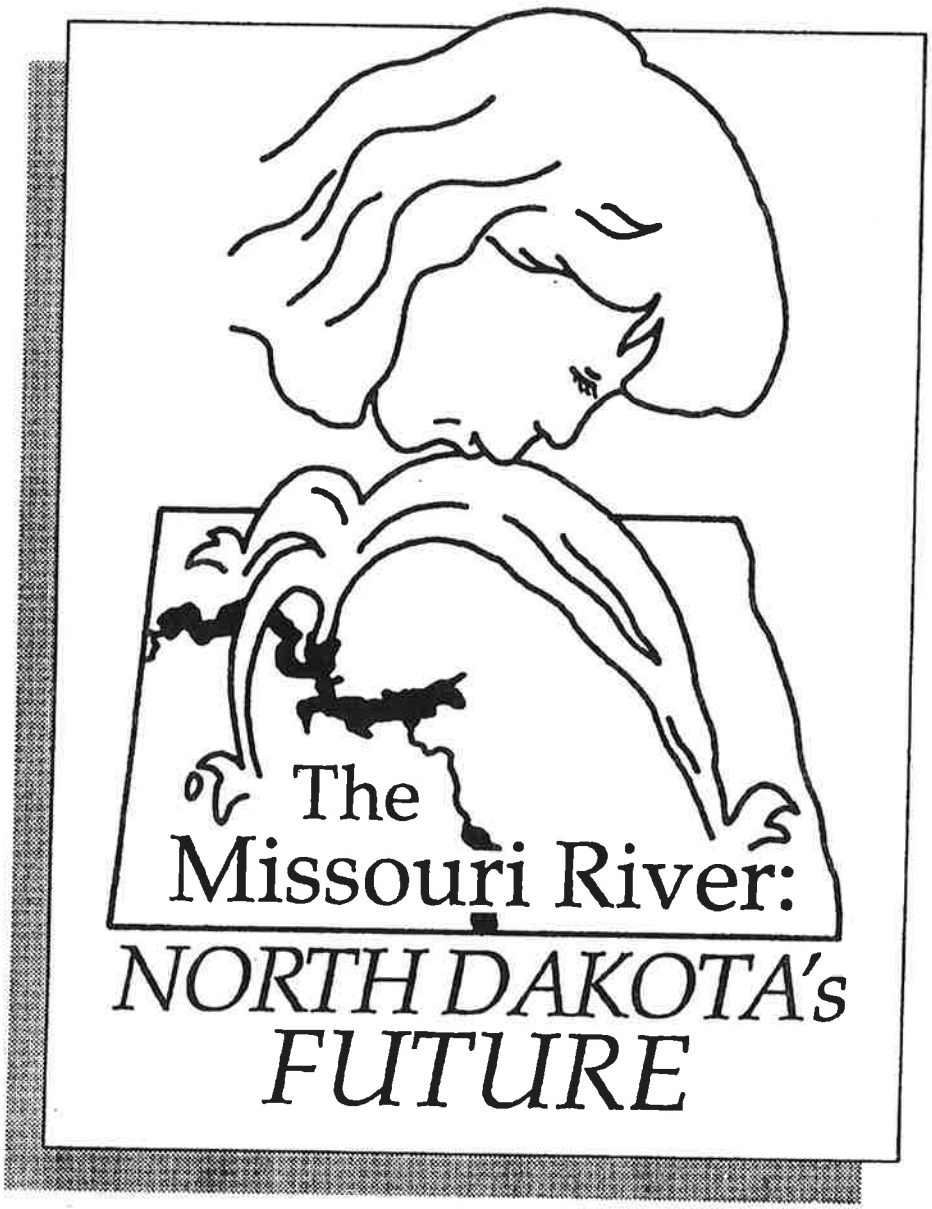
The presentation should also explain that this expedited water development program will allow the state to meet the requirements of the prior Appropriation Doctrine and its "use it or lose it" mandate. The state must use the water of the Missouri River if it is to secure a legal right to that use.

An important point to make in discussion of the need for a water development fund is that economic development will not reach its potential in this state until Missouri River and other waters are distributed and available on a statewide basis. The revenue increase necessary to fund this program could easily be offset by income to the state treasury resulting from a vigorous economic development program.

APPENDIX "C"

Governor's Water Strategy Task Force

Subcommittee on Financing



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Subcommittee on Financing Report

The Subcommittee on Financing report was amended and given preliminary acceptance:

1. A 1/4 percent sales tax;

2. A 5 percent surcharge on corporate income tax;

3. An increase in the individual income tax rate from 14 percent to 15 percent, with a sunset on all three tax measures on December 31, 1999.

4. Optional alternative: water user tax.

In addition, the Subcommittee recommends that cities and rural water districts benefiting from construction of water supply improvements be required to pay for part of the cost of the improvement, when a local contribution is appropriate.

According to the Tax Commissioner's Office, a 1/4 percent sates tax would raise approximately $12,000,000 per year.

Increasing the individual income tax from 14 percent to 15 percent would raise approximately $8.5 million per year, and a 5 percent surcharge on corporate income tax would raise

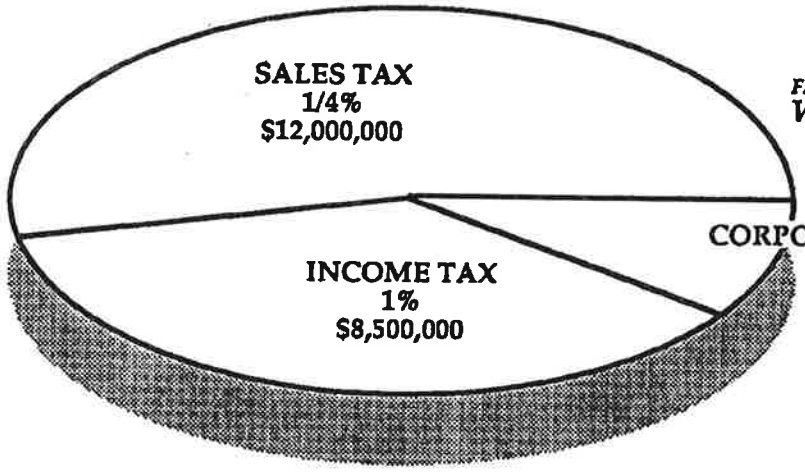


FIGURE 4
Water Development Taxes

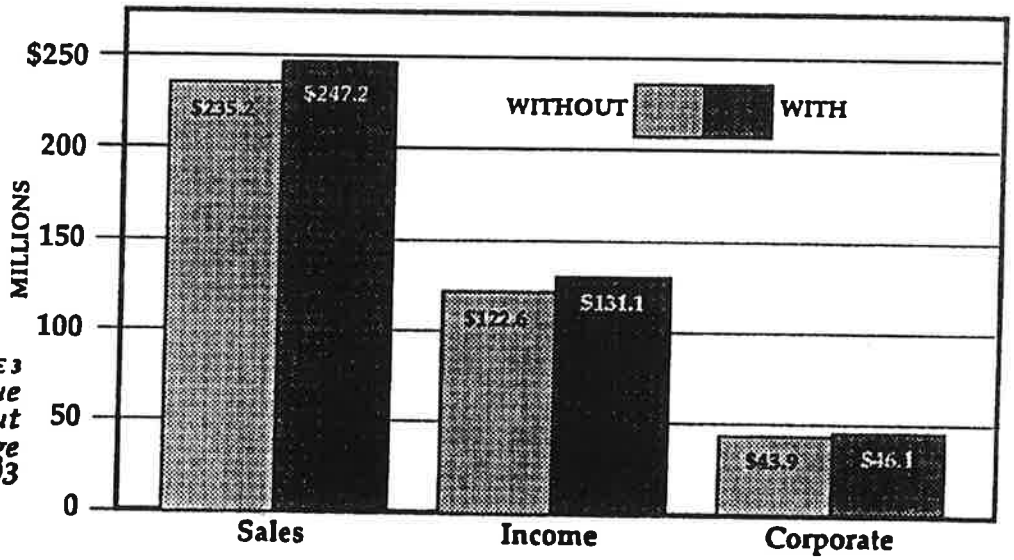


FIGURE 3
Estimated Tax Revenue With and Without Proposed Tax Package Fiscal Year 1993

approximately $2.25 million per year.

So, about $22.75 million would be raised annually by the proposed combination of sales and income taxes.

Subcommittee members feel that a combination of revenue sources would be desirable, in order to answer concerns expressed at the regional meetings.

A 1/4 percent sales tax would not severely impact minimum wage earners but would enable visitors to the state to contribute.

The income tax would affect all wage earners — including those who live outside the state — and would also enable out of state corporations to contribute.

Requiring payment by political subdivisions, when improvements such as water treatment plants are being constructed, would address the feeling that there should be a direct contribution from water users. And, sharing of costs usually helps to control costs. For example, the present Water Commission 35 percent/65 percent grant program could be continued and applied to some of the new projects that will be constructed in order to assure that part of the cost is assumed by local users.

(While considering this report, the Task Force felt that the suggestion for a general water user tax be developed and submitted at the regional meetings for comment.)

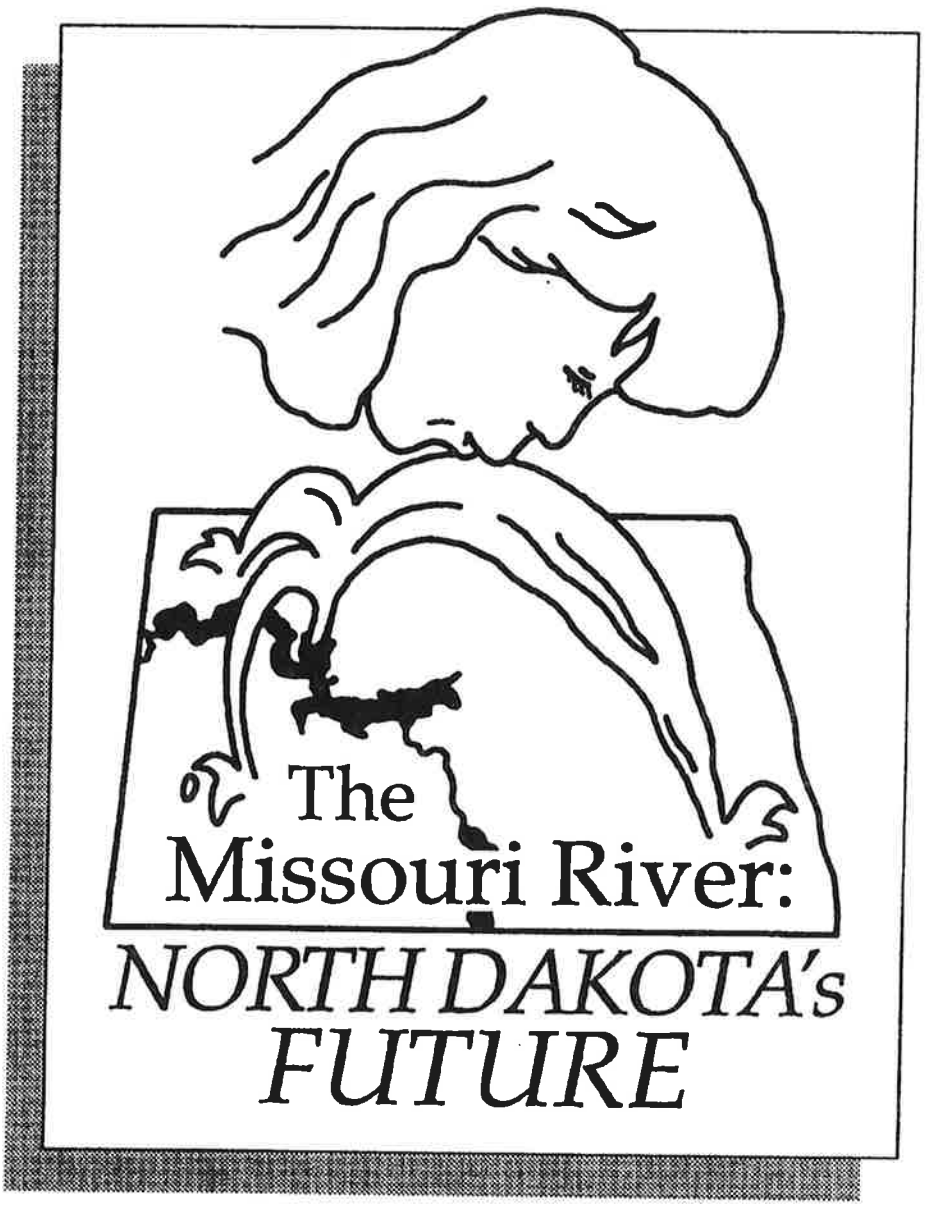
If the proposal is adopted; the federal government, state government, local governments, and people who are utilizing water services will all be involved in development of a state-wide water distribution system.

We also recommend that the proposal be discussed at the September regional meetings to determine citizen reaction before the final report is written.

APPENDIX "D"

Governor's Water Strategy Task Force

Subcommittee on Program Benefits



1991

THE BENEFITS OF WATER SUPPLY PROJECTS PROPOSED BY THE GOVERNOR'S WATER STRATEGY TASK FORCE

Prepared by

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NORTH DAKOTA STATE WATER COMMISSION
BISMARCK, NORTH DAKOTA

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INTRODUCTION

The Governor's Water Strategy Task Force must recommend a water supply development program to Governor Sinner by October 1, 1991. The Task Force examined water-related issues and gathered information on North Dakota's water needs from the Comprehensive State Water Management Plan and from hearings conducted in eight locations throughout the state. After reviewing all available information, the Task Force developed the water supply development program to be recommended to the Governor.

The program contains a list of 11 projects and expenditures which are necessary to satisfy the state's water-related needs through the year 2000 and beyond. The Subcommittee on Program Costs (1991) estimated both federal and state cost shares for each of the 11 projects and expenditures in the recommended program. This document provides estimates of the benefits which North Dakotans will receive from the proposed water supply projects.

BENEFIT IDENTIFICATION

Short-term and long-term benefits are produced by water supply projects. Short-term benefits are the dollars of increased economic activity resulting from the expenditure of federal dollars to construct projects in North Dakota. Federal dollars are considered "new money" to the state's economy, whereas state

dollars, which are necessary to obtain the federal cost-share, are simply a transfer of money from the private to the public sector. Dollars of increased economic activity resulting from construction expenditures are estimated using the North Dakota Input-Output Model (Coon et al. 1990). Increases in the state's total business activity, retail trade, personal income, and employment can be estimated using input-output technology.

Long-term benefits are derived from the use of water supply projects after construction has been completed. Long-term benefits can be from irrigation, recreation, wildlife, or water for municipal, rural, and industrial (MR&I) uses. Some of these benefits have been valued in dollar terms in published studies. However, there are also intangible benefits (such as quality of life or health-related benefits for MR&I projects) which can not be quantified in dollar terms without in-depth analyses. These benefits, which can be very important to a project's total value, will be identified and described.

VALUATION OF BENEFITS

The Subcommittee on Program Costs (1991) estimated federal cost-shares for the recommended projects to be:

	(millions)
- Mid-Dakota Reservoir	$22.8
- Canal Maintenance and Rehabilitation	13.3
- James River	4.4
- Sheyenne River and Devils Lake	49.0
- Turtle Lake Irrigation	22.1
- Williston Irrigation	16.3
- Southwest Pipeline Project	58.3
- Northwest Area Water Supply	80.0
- MR&I Program	63.8
TOTAL	$330.0

Federal cost-share dollars for each project were averaged over the estimated years needed to complete construction activities (Appendix A). The federal expenditures were inserted into the North Dakota Input-Output Model to estimate the short-term impacts on the state's economy.

Short-term Benefits

Construction of the proposed projects would improve total business activity in the state by about $800 million from 1992-2000 (Table 1). Retail trade would increase by $130 million and personal income would improve by $200 million. Over 1,300 jobs per year would be supported during the construction phase of the projects.

TABLE 1. SHORT-TERM BENEFITS OF PROJECTS RECOMMENDED BY THE GOVERNOR'S WATER STRATEGY TASK FORCE, 1991

Year	Total Business Activity	Retail Trade	Personal Income	Employment
	---------- millions ----------			
1992	$70.27	$11.51	$18.54	1,059
1993	84.20	13.85	22.01	1,267
1994	95.00	15.66	24.63	1,428
1995	127.58	21.13	32.75	1,926
1996	127.58	21.13	32.75	1,926
1997	81.05	13.32	20.11	1,232
1998	94.33	15.55	23.42	1,430
1999	63.18	10.60	15.73	958
2000	63.18	10.60	15.73	958
TOTALS	$806.37	$133.35	$205.67	12,184

Long-term Benefits

As stated previously, long-term benefits accrue from the use of projects. Long-term benefits for the proposed projects which can be quantified in dollar terms are:

- irrigation, and
- enhanced recreation and wildlife.

Benefits from water supply projects providing water for MR&I uses as well as canal maintenance and construction are difficult to quantify or are intangible benefits. They will be expressed in non-dollar terms.

Irrigation Benefits

Two proposed projects would form irrigation districts in the Turtle Lake and Williston areas. Leitch et al. (1991) estimated the dollar values of irrigation benefits to the state's economy. Crop rotations and yields used to estimate returns in the Turtle Lake area will be used as a proxy for the Williston area.

Two types of economic effects occur when converting cropland from dryland to irrigated. Net returns change, affecting the well being of farm families, and on-farm production activity increases as a result of intensified cropping and a widened range of possible enterprises (Leitch et al. 1991).

Net returns to unpaid labor and management were $79.25 per acre higher for irrigated land than dryland in the Turtle Lake area (Leitch et al. 1991). This figure assumes irrigators did not raise surplus crops such as wheat or corn grain on their irrigated acres.

Similar returns could be expected for the Williston area, which has a growing season similar to the Turtle Lake area.

The increased on-farm production activity affects the economy of the state. More inputs used per acre and higher per acre returns translate into increased economic activity. The proposed Turtle Lake and Williston area irrigation developments would increase the state's total business activity by over $22 million annually, and provide additional secondary employment of 384 jobs (Table 2).

TABLE 2. ANNUAL LONG-TERM BENEFITS FOR PROPOSED IRRIGATION PROJECTS RECOMMENDED BY THE GOVERNOR'S WATER STRATEGY TASK FORCE, 1991

Project	Total Business Activity	Retail Trade	Personal Income	Employment
	---------- million ----------			
Turtle Lake Area (13,700 acres)	$13.13	$5.24	$3.92	222
Williston Area (10,000 acres)	9.58	3.83	2.86	162
TOTALS	$22.71	$9.07	$6.78	384

Enhanced Recreation and Wildlife Benefits

Construction of Mid-Dakota Reservoir and the Devils Lake Pipeline would provide the state with additional water and wildlife associated recreation benefits. The value of water-associated recreation benefits (boating, camping, swimming) can be measured by estimating the per day dollar expenditures of recreationists.

Wildlife-associated recreation benefits can be valued by estimating per day expenditures of people hunting or fishing.

Another method of valuing recreation benefits is by estimating consumers' surplus, which is the extra benefits consumers receive beyond what they pay for a good or service (Anderson et al. 1985). In other words, consumers' surplus is what consumers are willing to pay for benefits from goods or services minus what they actually pay. Consumers' surplus is a method used by the federal government to conservatively value recreation benefits. Both expenditures and consumers' surplus values are presented to offer an upper and lower range of values for recreation and wildlife benefits (Table 3).

Impacts of recreation and wildlife benefits to the state's economy can be estimated by inserting expenditures (Table 3) into the Recreation and Tourism sector of the Input-Output model. Over $110 million of total business activity would be generated annually. Over $14 million in retail trade and nearly $20 million of personal income would be generated. Use of the two proposed projects would support the employment of over 1,600 people in the state.

The state will receive additional wildlife-associated benefits from the stabilization of habitat along canals and rivers in the state. Bank stabilization projects prevent erosion in riparian habitats. Fisheries and wildlife habitats in and along rivers and impoundments used to transport and store Garrison Diversion water will benefit from a stable source of clean water (Leitch and Schutt 1990).

TABLE 3. ANNUAL LONG-TERM RECREATION AND WILDLIFE BENEFITS OF PROJECTS PROPOSED BY THE GOVERNOR'S WATER STRATEGY TASK FORCE, 1991

Project/ Activity	Days	Expenditures Per Day	Expenditures Total	Consumers'[a] Surplus
Mid-Dakota				
Water Rec.[b]	98,844	63	$6,227,172	$2,490,869
Hunting[c]				
Waterfowl	1,600	105	168,000	67,200
Upland	3,000	218	654,000	261,600
Big Game	2,600	255	663,000	265,200
Totals			$7,712,172	$3,084,869
Devils Lake[d]				
Fishing	215,422	87	$18,741,714	$7,496,686
Water Rec.	120,148	63	7,569,324	3,027,730
Totals			$26,311,038	$10,524,416
TOTAL ANNUAL BENEFITS			$34,023,210	$13,609,285

[a]Anderson et al. (1985) estimated consumers' surplus for North Dakota water-related activities to be 40 percent of expenditures.
[b]Average annual days of recreation on Lake Tschida were multiplied by 1.5 to be used as a proxy for Mid-Dakota recreation. Mid-Dakota Reservoir will be two times as large with a cleaner, more stable water supply and better facilities than Lake Tschida. Daily expenditures of visitors to Lake Metigoshe and Lake Sakakawea State Parks in 1984 (Mittleider and Leitch 1984) were averaged, then inflated to 1991 dollars using the Consumer Price Index (CPI) to serve as a proxy for all nonconsumptive outdoor recreation activities.
[c]Estimated annual days hunting for Lonetree Reservoir (Leitch and Schutt 1990) were multiplied by 2.0. Mid-Dakota Reservoir will provide about 2.5 times the habitat area as the proposed Lonetree Reservoir. Expenditure estimates from Baltezore and Leitch (1988) were inflated to 1991 dollars using the CPI.
[d]Estimates of fishing and water recreation days in Devils Lake attributable to Garrison Diversion water and expenditures were derived from Leitch and Schutt (1990).

Municipal, Rural, and Industrial Water Project Benefits

Quantification in dollar terms of long-term MR&I benefits would require an extensive, in-depth analysis that is beyond this study's scope. Traditional analytical procedures establish MR&I

water supply benefits equal to the cost of the most likely alternative that would furnish equal service. Unfortunately, nearly every city or rural water system's alternative supply is unique, thereby rendering a general analysis inaccurate at best. In some cases there is no other alternative water source. Recognizing this problem, the computerized Waterware II cost-benefit analysis program for water projects assumes MR&I project benefits equal costs (Coon et al. 1989).

Proposed MR&I projects include the Southwest Pipeline Project, the Northwest Area Water Supply, and the MR&I Water Supply Program. The primary benefits of MR&I projects are an:

- improvement in water quality,
- increase in water quantity, and/or
- improvement in the reliability of water quality and quantity.

These primary benefits translate into many intangible benefits which are difficult to quantify in dollar terms. Intangible benefits from MR&I projects are:

- improved health,
- enhanced quality of life,
- private economic considerations:
    - MR&I water may be the least-cost alternative for communities trying to meet EPA standards,
    - increased useful life of water supply equipment,
    - retained property values, and
- economic development for North Dakota.

Citizens throughout the state are experiencing problems finding reliable quantities of good quality water. Southeastern North Dakota water supplies have high arsenic levels. Water with high mineral contents reduces the service lives of water heaters

and individual wells in some areas. Southwestern North Dakota communities have water with fluoride levels too high to meet the Environmental Protection Agency health codes. Seven cities have received notices of violation from the EPA and face fines of up to $25,000 per day. Proposed MR&I projects would solve these problems.

Prolonged drought has reduced water supplies and forced many North Dakota cities to restrict lawn watering and other water uses. Gardening and yardwork is the second-most popular outdoor recreation activity in the state (ND Parks and Recreation Dept. 1991). Citizens' quality of life could be improved if more reliable sources of water were made available.

Increasing water supplies for economic development is becoming an issue in North Dakota and the nation (Clark 1991). Water's effects on economic development are receiving more attention by researchers. McGuire (1986) found public investment in infrastructure such as water supply and transportation were the keys to improved business productivity and economic development. Aschauer (1988) furthered McGuire's findings by comparing public investments and growth in the nation's economy. He found public investment in infrastructure to be the most productive investment of public money. He also found other countries such as Japan and West Germany invested much more in infrastructure and had much higher business productivity than the United States.

CONCLUSION

According to the Vision 2000 Committee, North Dakota's economic future depends on minimizing the state's limits to economic growth. A dependable supply of good quality water may be limiting some areas' economic growth. Public investment in infrastructure, such as a state-wide water distribution system, would help minimize this limit to growth. No definitive cost-benefit analysis can be made on this issue. In addition, the public sector makes expenditures for society and does not expect to recover all outlays on projects, such as water supply projects, that provide infrastructure. Public sector water programs are "repaid" in returns to society, some of which remain unquantified.

LITERATURE CITED

Anderson, Randall S., Jay A. Leitch, and Cliff R. Fegert. 1885. Guidelines for Economic Evaluation of Public Sector Water Resource Projects. Ag. Econ. Report No. 201, NDSU, Fargo.

Aschauer, David. 1988. Is Public Expenditure Productive? Federal Reserve Bank of Chicago Staff Memoranda. F.R.B. Corporate Information Center, Chicago.

Baltezore, James F. and Jay A. Leitch. 1988. Extent and Impact of Resident Hunter and Angler Expenditures in North Dakota in 1986. Ag. Econ. Report No. 236, NDSU, Fargo.

Clark, David. 1991. North Dakota's Largest Cities Need to Look For Water. The Fargo Forum. August 5, 1991. pp. A5.

Coon, Randal C., Theresa K. Golz, and Jay A. Leitch. 1990. Expanding the North Dakota Input-Output Model to Include Recreation and Tourism. Ag. Econ. Report No. 255, NDSU, Fargo.

Coon, Randal C., Jay A. Leitch, and Randall S. Anderson. 1989. "Waterware-II Version 2.0." Ag. Econ. Dept. NDSU, Fargo.

Leitch, Jay A., James F. Baltezore, Roger G. Johnson, and Randal C. Coon. 1991. A Reevaluation of GDU Irrigation. Ag. Econ. Publication No. AE91006. NDSU, Fargo.

Leitch, Jay A., and Preston F. Schutt. 1990. Garrison Diversion Unit Fish and Wildlife Component Mitigation and Enhancement Benefits. Ag. Econ. Dept. NDSU, Fargo.

McGuire, Therese J. 1986. On the Relationship Between Infrastructure Investment and Economic Development. Final Report to the National Council on Public Works. W. Averell Harriman College of Policy Analysis and Public Management, State University of New York, Stony Brook.

Mittleider, John F., and Jay A. Leitch. 1984. Economic Contribution of State Parks to the North Dakota Economy. Ag. Econ. Report No. 194, NDSU, Fargo.

North Dakota Parks and Recreation Department. 1991. "North Dakota 1991-1995 Outdoor Recreation Plan." North Dakota Park and Recreation Dept, Bismarck.

Subcommittee on Program Costs. 1991. "Governors Water Strategy Task Force." North Dakota State Water Commission, Bismarck.

ECONOMIC ACTIVITY FROM CONSTRUCTION EXPENDITURES — 1992-2000
Total Business Activity (in millions of dollars)

PROJECT	AVE. YEARLY EXPENDITURE	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL
Mid-Dakota Reservoir	5.70		13.93	13.93	13.93	13.93					55.72
Canal Maintenance & Rehabilitation	2.60	6.50	6.50	6.50	6.50	6.50					32.50
James River	0.88	2.15	2.15	2.15	2.15	2.15					10.75
Sheyenne River & Devils Lake	9.80	23.95	23.95	23.95	23.95	23.95					119.75
Turtle Lake Irrigation	4.42			10.80	10.80	10.80	10.80	10.80			0.54
Williston Irrigation	5.43							13.28	13.28	13.28	39.84
Southwest Pipeline Project	8.32	20.35	20.35	20.35	20.35	20.35	20.35	20.35			142.45
Northwest Area Water Supply	13.33				32.58	32.58	32.58	32.58	32.58	32.58	195.48
MR&I Program	7.08	17.32	17.32	17.32	17.32	17.32	17.32	17.32	17.32	17.32	155.88
	TOTAL	70.27	84.20	95.00	127.58	127.58	81.05	94.33	63.18	63.18	806.37

ECONOMIC ACTIVITY FROM CONSTRUCTION EXPENDITURES — 1992-2000
Employment

PROJECT	AVE. YEARLY EXPENDITURE	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL
Mid-Dakota Reservoir	$ 5.70		208	208	208	208					832
Canal Maintenance & Rehabilitation	2.60	94	94	94	94	94					470
James River	0.88	26	26	26	26	26					130
Sheyenne River & Devils Lake	9.80	366	366	366	366	366					1830
Turtle Lake Irrigation	4.42			161	161	161	161	161			805
Williston Irrigation	5.43							198	198	198	594
Southwest Pipeline Project	8.32	311	311	311	311	311	311	311			2177
Northwest Area Water Supply	13.33				498	498	498	498	498	498	2988
MR&I Program	$ 7.08	262	262	262	262	262	262	262	262	262	2358
	TOTAL	1059	1267	1428	1926	1926	1232	1430	958	958	12,184

ECONOMIC ACTIVITY FROM CONSTRUCTION EXPENDITURES — 1992-2000
Retail Trade (in millions of dollars)

PROJECT	AVE. YEARLY EXPENDITURE	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL
Mid-Dakota Reservoir	5.70		2.34	2.34	2.34	2.34					9.36
Canal Maintenance & Rehabilitation	2.60	1.09	1.09	1.09	1.09	1.09					5.45
James River	0.88	0.36	0.36	0.36	0.36	0.36					1.80
Sheyenne River & Devils Lake	9.80	4.02	4.02	4.02	4.02	4.02					20.10
Turtle Lake Irrigation	4.42			1.81	1.81	1.81	1.81	1.81			9.05
Williston Irrigation	5.43							2.23	2.23	2.23	6.69
Southwest Pipeline Project	8.32	3.14	3.14	3.14	3.14	3.14	3.14	3.14			21.98
Northwest Area Water Supply	13.33				5.47	5.47	5.47	5.47	5.47	5.47	32.82
MR&I Program	7.08	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	26.10
	TOTAL	11.51	13.85	15.66	21.13	21.13	13.32	15.55	10.60	10.60	133.35

ECONOMIC ACTIVITY FROM CONSTRUCTION EXPENDITURES — 1992-2000
Personal Income (in millions of dollars)

PROJECT	AVE. YEARLY EXPENDITURE	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL
Mid-Dakota Reservoir	5.70		3.47	3.47	3.47	3.47					13.88
Canal Maintenance & Rehabilitation	2.60	2.66	2.66	2.66	2.66	2.66					13.30
James River	0.88	0.54	0.54	0.54	0.54	0.54					2.68
Sheyenne River & Devils Lake	9.80	5.97	5.97	5.97	5.97	5.97					29.85
Turtle Lake Irrigation	4.42			2.62	2.62	2.62	2.62	2.62			13.10
Williston Irrigation	5.43							3.31	3.31	3.31	9.93
Southwest Pipeline Project	8.32	5.07	5.07	5.07	5.07	5.07	5.07	5.07			35.49
Northwest Area Water Supply	13.33				8.12	8.12	8.12	8.12	8.12	8.12	48.72
MR&I Program	7.08	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	38.70
	TOTAL	18.54	22.01	24.63	32.75	32.75	20.11	23.42	15.73	15.73	205.65

APPENDIX "E"

ARTICLE _____-_____

DROUGHT DISASTER LIVESTOCK WATER SUPPLY PROJECT ASSISTANCE PROGRAM

Chapter

_____-_____-01 Drought Disaster Livestock Water Supply Project Assistance Program

CHAPTER ___-___-01
DROUGHT DISASTER LIVESTOCK WATER SUPPLY PROJECT ASSISTANCE PROGRAM

Section

___-___-___-01 Definitions
___-___-___-02 Drought Declaration Required
___-___-___-03 Applicant Eligibility
___-___-___-04 Funding - Priority - Eligible Items
___-___-___-05 Non-Eligible Items
___-___-___-06 Application Procedure

___-___-___-01. Definitions. As used in this chapter, unless the context or subject matter otherwise requires:

1. "Livestock producer" means an individual who produces livestock or operates a dairy farm, who normally devotes the major portion of the individual's time to the activities of farming or ranching, and who normally receives not less than fifty percent of the individual's annual gross income from farming or ranching.

2. "Water supply project" includes construction of new wells; construction of dugouts or stock dams that are spring-fed or have a high water table, pipelines, and rural water system connections; and the development of springs.

History: Effective _____.
General Authority: NDCC 28-32-02, 61-03-13, ___-___-___
Law Implemented: NDCC ___-___-___

___-___-___-02. Drought declaration required. No funds may be disbursed for any water supply project unless the county in which the water supply project is to be located is a county or is adjacent to a county that has been declared by the governor to be a drought disaster area for purposes of this program, or a drought disaster area under a drought declaration that has not been rescinded.

History: Effective _____.
General Authority: NDCC 28-32-02, 61-03-13, ___-___-___
Law Implemented: NDCC ___-___-___

___-___-___-03. Applicant eligibility.

1. Applicant must be a livestock producer with livestock water supply problems caused by drought.

2. Applicant must first apply for water cost-share assistance from the agricultural stabilization conservation service and must have been denied agricultural stabilization conservation service cost-share assistance.

History: Effective _____.
General Authority: NDCC 28-32-02, 61-03-13, ___-___-___
Law Effective: NDCC ___-___-___

___-___-___-04. Funding - Priority - Eligible items.

1. The state water commission shall provide funds for the program to the extent funding is available. Priority will be based on earliest date of application.

2. Cost-share assistance may only be used for water supply projects which will provide a long-term immediate solution to a drought related water supply shortage.

3. All wells drilled with funds provided pursuant to this program, must be drilled by a North Dakota certified water well contractor.

4. Applicant may receive up to fifty percent of the eligible costs of the project, but no more than three thousand five hundred dollars.

History: Effective _____.
General Authority: NDCC 28-32-02, 61-03-13, ___-___-___
Law Implemented: NDCC ___-___-___

___-___-___-05. Non-eligible items. The following projects are not eligible for funding from the drought disaster livestock water supply project assistance program.

1. A rehabilitation of an existing well.

2. A water supply project on federal or state land.

3. A dry hole drilled in an attempt to construct a water well or to locate a water source.

4. A water supply project started or completed prior to July 1, 1991.

5. Water supply project started after December 31, 1991, without prior approval of the state engineer.

6. The construction of stock dams or dugouts dependent upon runoff.

7. Projects that require repair as a result of failure to provide maintenance to an existing water source.

8. Readily removable project features of water supply projects including electric pumps, stock watering tanks, or electrical hook-ups, or easements.

History: Effective _____.
General Authority: NDCC 28-32-02, 61-03-13, ___-___-___
Law Implemented: NDCC ___-___-___

___-___-___-06. Application procedure.

1. Requests for assistance must be on a form provided by the state water commission and must include:

   a. Written proof that applicant applied for agricultural stabilization conservation service cost-share assistance and was denied such assistance including the reason for the denial.

   b. An area map indicating the location of the proposed water supply project.

   c. A written estimate of the costs of the proposed water supply project.

   d. Verification by applicant that applicant is a livestock producer.

2. The state engineer shall review applications and approve or deny them. The state engineer shall, within the limits of available funding, provide assistance to those persons whose applications are approved. The applicant must agree to:

   a. Complete the project within sixty days of receiving notification of approval of funding of the water supply project.

   b. Provide receipt of actual expenditures or an affidavit of work completed if work is done by the applicant or both if applicable.

c. Grant to the state water commission or anyone authorized by the state water commission the right to enter upon the land to inspect the completed water supply project after giving reasonable notice to the applicant.

d. Indemnify and hold harmless the State of North Dakota and the state water commission, its officers, agents, employees, and members, from all claims, suits, or actions of whatsoever nature resulting from or arising out of the activities of applicant or applicants agents or employees under this agreement.

3. Application forms may be obtained by contacting:

North Dakota State Water Commission
900 East Boulevard
Bismarck ND 58505
(701) 224-2750

History: Effective _____.
General Authority: NDCC 28-32-02, 61-03-13, ___-___-___
Law Implemented: NDCC ___-___-___

ATTORNEY GENERAL
STATE OF NORTH DAKOTA
600 East Boulevard
State Capitol
Bismarck, North Dakota 58505-0040

701-224-2210
FAX 701-224-2226

Nicholas J. Spaeth
ATTORNEY GENERAL

August 8, 1991

Mr. B. Barton Fisher, Chairman
Atmospheric Resource Board
900 East Boulevard Avenue
Bismarck, ND 58505-0850

Dear Mr. Fisher:

Thank you for your July 9, 1991, letter regarding my interpretation of N.D.C.C. § 61-04.4-06. Specifically, you inquired about the relationship between the Atmospheric Resource Board and the State Water Commission pursuant to this statute.

For the reasons stated below I conclude that the legal relationship between the Board and the Commission is delineated by statute.

N.D.C.C. § 61-04.1-06 states:

> Direction and supervision by state water commission -- Independent functions retained by board. The powers, functions, and duties of the board shall be administered under the direction and supervision of the North Dakota state water commission. The board shall retain the quasi-judicial, quasi-legislative, advisory, budgetary, and rulemaking, and other functions vested in it, which shall be exercised in accordance with policy and guidelines for weather modification activities as established by the commission.

This statute, enacted in 1981, changed the direction and supervisory authority over the Weather Modification Board from the State Aeronautics Commission to the State Water Commission. Neither the prior statute nor the present statute have been interpreted or analyzed by a court. According to general rules of statutory interpretation, words used in any statute are to be understood in their ordinary sense, unless a contrary intention plainly appears. N.D.C.C. § 1-02-02. Consideration also should be given to the context in which the words of a statute are used and the purpose which prompted the enactment of the statute. Coldwell Banker-First Realty, Inc. v. Meide

& Son, 422 N.W.2d 375 (1988). The policy and purpose of N.D.C.C. ch. 61-04.1 is stated in N.D.C.C. § 61-04.1-02:

> [W]eather modification. shall be subject to regulation and control, and research and development shall be encouraged. To minimize possible adverse effects, weather modification operations shall be carried on with proper safeguards, and accurate information shall be recorded concerning such operations and the benefits obtained therefrom by the people of the state.

This same policy was stated in the predecessor to this statute, N.D.C.C. § 2-07-01.1 (repealed in 1981).

In furtherance of this purpose, the Legislature created the North Dakota Weather Modification Board, now called the Atmospheric Resource Board, pursuant to N.D.C.C. § 61-04.1-04. As it was previously, the North Dakota Atmospheric Resource Board is a division of another state agency. The Legislature clarified in its 1981 enactment of N.D.C.C. § 61-04.1-06 that "[t]he powers, functions, and duties of the board shall be administered under the direction and supervision of the North Dakota state water commission." The next sentence of that section may be considered confusing until examined in the context of the whole section and the rest of the chapter.

The second sentence appears to mean the Board will retain legislative and judicial functions to some degree, along with advisory, budgetary, rulemaking and other functions vested in it. However, these functions must be performed in accordance with policy and guidelines established by the State Water Commission. Thus, this sentence reiterates the message of the first sentence of this section, that all the powers, functions, and duties of the Board (given by statute in N.D.C.C. ch. 61-04.1) shall be administered under direction and supervision of the State Water Commission. Throughout chapter 61-04.1, and in particular, N.D.C.C. § 61-04.1-08, the Legislature has given the Board specific powers and duties. This is not inconsistent with N.D.C.C. § 61-04.1-06 which provides that all powers and functions of the Board are under the supervision and direction of the State Water Commission. Thus, the Atmospheric Resource Board is considered a division of the State Water Commission. In carrying out its duties and functions it is under the

direct supervision and authority of the State Water Commission.

You indicated in your letter that the State Water Commission has not developed policies or guidelines for Atmospheric Resource Board activities and has not exercised direction or supervisory control over the Board since enactment of this chapter. The amount of direction or supervision exercised is within the discretion of the supervisory authority. If the Atmospheric Resource Board cannot fulfill its functions and duties without more direction or supervision from the State Water Commission, the Board may wish to take the matter directly to the State Water Commission. Alternatively, the Board could approach the Legislature for further amendments to specifically set out what actions the State Water Commission should take. In your case, it appears that you desire more defined guidelines and policies from the State Water Commission, and therefore, I would advise meeting with it for that purpose.

Sincerely,

Nicholas Spaeth

Nicholas J. Spaeth

dfm

NORTH DAKOTA
Atmospheric Resource Board
A DIVISION OF THE NORTH DAKOTA STATE WATER COMMISSION

[redacted] • (701) 224-2788
900 East Boulevard Avenue, Bismarck, ND 58505-0850

July 9, 1991

Mr. Nicholas Spaeth
Office of the Attorney General
600 E. Boulevard Avenue
Bismarck, ND 58505

Dear Mr. Spaeth:

The Atmospheric Resource Board by this letter formally requests an opinion of the Attorney General of the State of North Dakota regarding the interpretation of Century Code 61-04.1-06.

Specifically, the strict relationship between the Atmospheric Resource Board and the State Water Commission needs to be defined. To the Board's knowledge, no policies or guidelines for weather modification activities have ever been established by the Water Commission.

Because of the combining or consolidation of the budgets of the Atmospheric Resource Board and the State Water Commission during the recently completed legislative session, the exact relationship of the two agencies needs to be established.

Your prompt action in this regard will be appreciated.

Very sincerely,

B. Barton Fisher
Chairman

BBF:bb
cc: David A. Sprynczynatyk, State Engineer

APPENDIX "G"

ATMOSPHERIC RESOURCE BOARD
ATMOSPHERIC RESOURCES DIVISION

Background, Organization, and Programs
August 22, 1991

Recent Background

The Atmospheric Resource Board (ARB) has been a division of the Water Commission since being moved from the Aeronautics Commission in the early 1980's.

Prior to February, 1991, the ARB staff and offices were located in a private office building near the Bismarck airport. Since then, we've been in the State Office Building, with staff and facilities split in three areas within the lower floor.

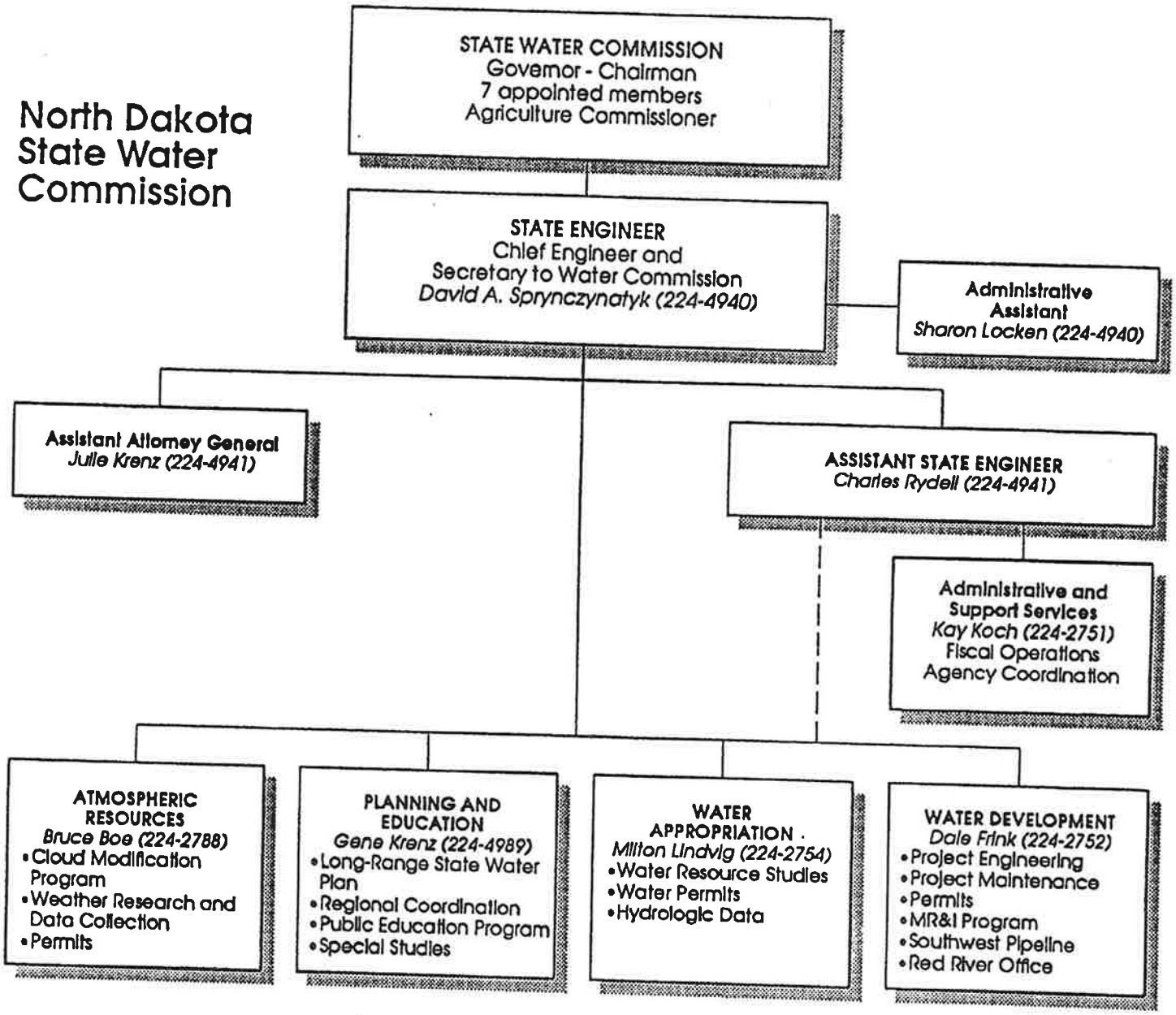
The Atmospheric Resource Board 1991-93 biennium budget request was prepared independently of that for the Water Commission, but the two were combined by the Office of Management and Budget prior to the session. The ARB budget as approved by the legislature now appears as the 7000-series cost centers within the SWC budget (see attached diagram).

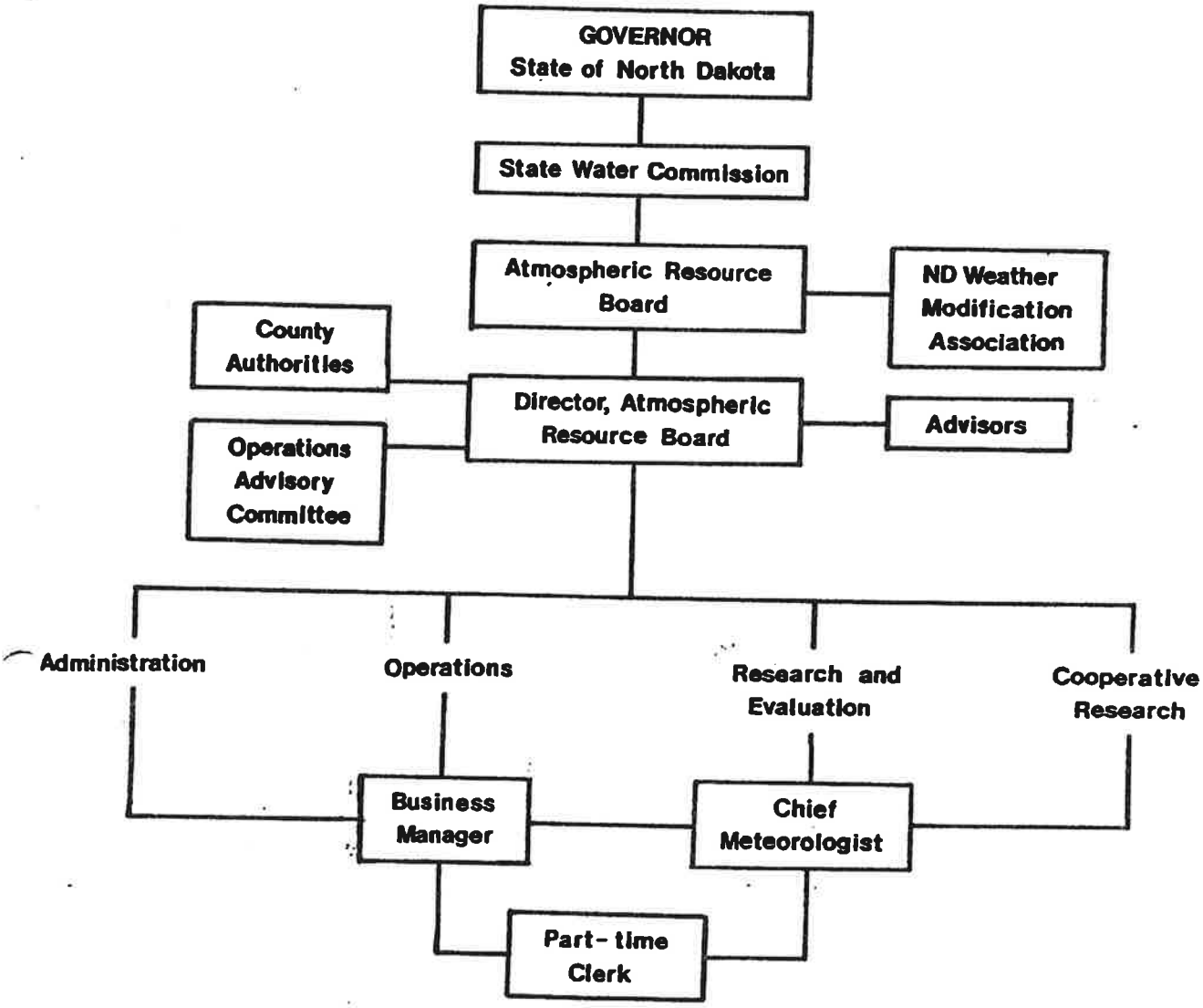
Organization
* Division of SWC
* Appointed Board
* County Weather Modification Authorities
* Operations Advisory Committees
* Contractors (for operations)
* Researchers (mostly universities)

Staffing
* 3 FTE - Director, Business Manager, Chief Meteorologist
* Temporary employees include:
  --> high school cooperative education student who serves as a clerk/receptionist and more,
  --> seasonal meteorlogists who work to support the summer operational field program

Budget
* Primary funding source is federal (research dedicated)
* Primary operational program funding is counties
* State funds adminstration, regulation, recordkeeping, and cost-shares operations and research

North Dakota State Water Commission

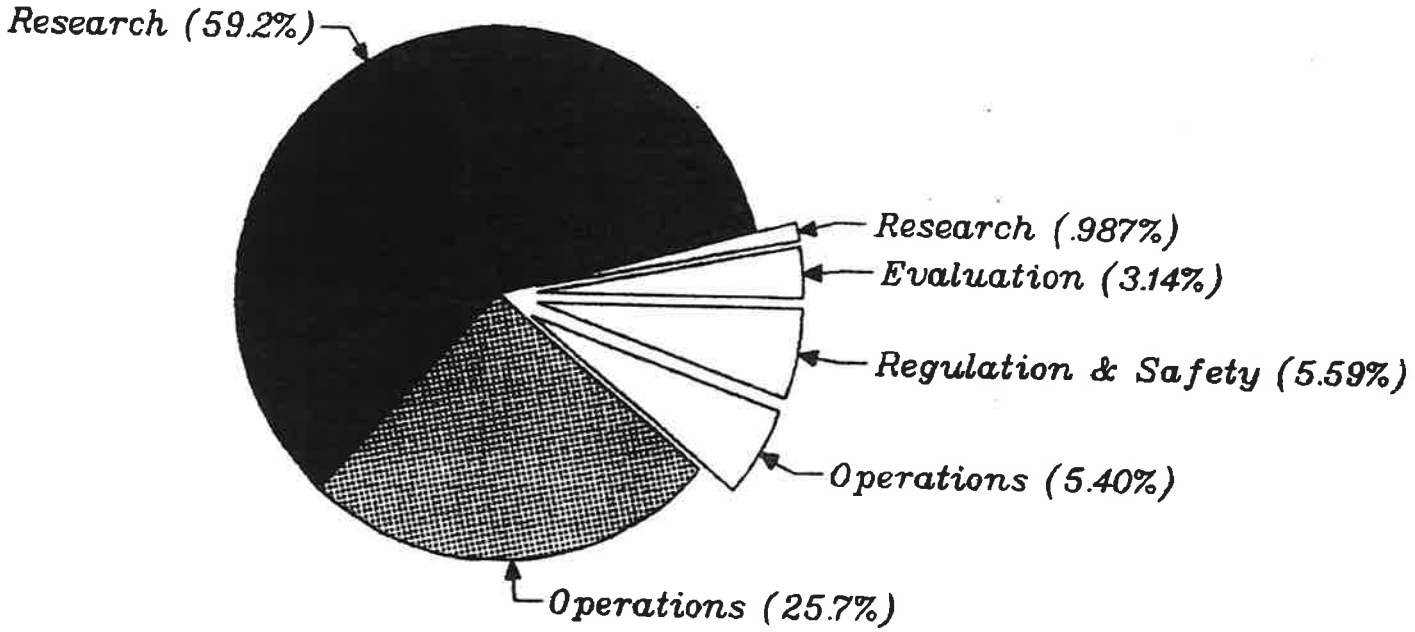




ORGANIZATIONAL STRUCTURE

Figure 1.

State Water Commission - Agency 770
Atmospheric Resources - Cost Center 7000



Total Division Budget: $5,065,615

- Federal Funds (Research only, $3,000,000)
- County Funds (Operations only, $1,300,000)
- General Funds ($765,615)

Programs

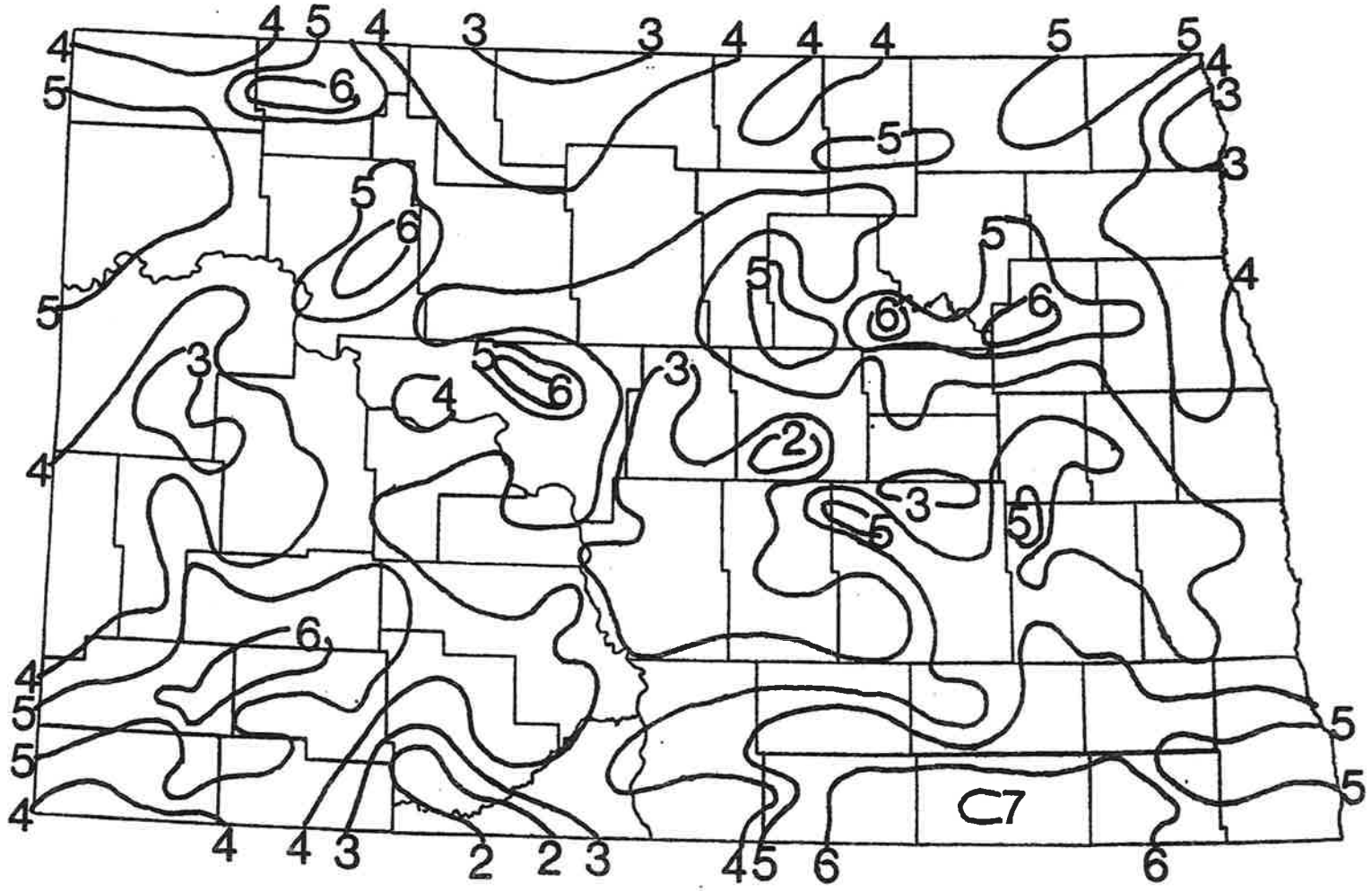
* Adminstration
  --> Regulation
  --> Recordkeeping
  --> Adminstration of operational program
  --> Education/information
  --> Safety

* Research and Evaluation
  --> Effects of operational program
  --> Effectiveness of cloud seeding efforts
  --> Economic and social impacts
  --> Statewide rain gauge network

* Operations
  --> County-sponsored hail suppression and rain enhancement programs
  --> Cost-sharing (about 33%)
  --> Implementation of safeguards
  --> Meteorological support
  --> Severe weather detection and warning

* Cooperative Research
  --> Mostly federally funded, State puts in $25,000 per year, feds about $500,000.
  --> Basic cloud research regarding precipitation formation and severe weather
  --> Nationally recognized
  --> Back in the field in 1992

NORTH DAKOTA ATMOSPHERIC RESOURCE BOARD
JUNE 1991 RAINFALL



North Dakota State Water Commission
900 EAST BOULEVARD • BISMARCK, ND 58505-0187 • (701)224-2750 • FAX (701)224-3696

RESOLUTION NO. 91-8-444

IN APPRECIATION - WILLIAM LARDY

WHEREAS, William Lardy served with distinction as a member of the North Dakota State Water Commission from July, 1985 to July, 1991; and

WHEREAS, Bill has given unselfishly of his time, talents, and energy to foster and promote wise water resource management throughout North Dakota; and

WHEREAS, his contributions to the deliberations of the State Water Commission were invaluable because of his experience as a member of the State Legislature; and

WHEREAS, his interest and concern for the future of water resource development and economic development in the State and region were clearly evident throughout his tenure as a State Water Commission member; and

WHEREAS, Bill strongly supported the development of the Southwest Pipeline Project, which will provide water to the semi-arid southwest portion of North Dakota, increase the quantity and quality of water supplies, and improve the social welfare and economic well-being of the citizens of the State; and

WHEREAS, his advice, counsel and participation will be missed by his fellow Commissioners, the State Engineer and staff.

NOW, THEREFORE, BE IT RESOLVED that the North Dakota State Water Commission, Lt. Governor Lloyd Omdahl, its Chairman, and the State Engineer and staff, at a meeting held in Bismarck, North Dakota, on August 22, 1991, do hereby express their thanks and appreciation to William Lardy for his services as a member of the State Water Commission and for his outstanding contribution to water development in this State; and

BE IT FURTHER RESOLVED that the members of the State Water Commission, the State Engineer and staff do hereby wish Bill the best of health and happiness in his future endeavors.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:

Lloyd B. Omdahl
Lieutenant Governor-Chairman

SEAL

David A. Sprynczynatyk
State Engineer and
Chief Engineer-Secretary

North Dakota State Water Commission
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RESOLUTION NO. 91-8-445

State Water Commission Authorization for
State Engineer and Secretary to Execute Binding Agreements

BE IT RESOLVED by the action taken at a meeting held in Bismarck, North Dakota, this 22nd day of August, 1991, that the State Engineer and Secretary of the North Dakota State Water Commission is hereby authorized and empowered on behalf of the State Water Commission to enter into contracts based upon actions, policies, and directives of the Commission.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:

Lloyd B. Omdahl
Lieutenant Governor-Chairman

SEAL

David A. Sprynczynatyk
State Engineer and
Chief Engineer-Secretary