

MINUTES

North Dakota State Water Commission
Bismarck, North Dakota

October 21, 1987

The North Dakota State Water Commission held a meeting on October 21, 1987, at the State Office Building, Bismarck, North Dakota. Lt. Governor-Chairman, Lloyd Omdahl, called the meeting to order at 9:30 a.m., and requested State Engineer and Secretary, Vernon Fahy, to call the roll and present the agenda.

MEMBERS PRESENT:

Lt. Governor Lloyd Omdahl, Chairman
Kent Jones, Commissioner, Department of Agriculture, Bismarck
Joyce Byerly, Member from Watford City
William Guy, Member from Bismarck
William Lardy, Member from Dickinson
Daniel Narlock, Member from Oslo, MN
Jerome Spaeth, Member from Bismarck
Vernon Fahy, State Engineer and Secretary, North Dakota
State Water Commission, Bismarck

MEMBERS ABSENT:

Governor George A. Sinner
Richard Backes, Member from Glenburn
Jacob Gust, Member from West Fargo

OTHERS PRESENT:

State Water Commission Staff Members
Approximately 15 persons interested in agenda items

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

CONSIDERATION OF MINUTES
OF SEPTEMBER 8, 1987 MEETING -
APPROVED

In considering minutes of the September 8, 1987 meeting, reference was made to the Commission's discussion of the Garrison MR&I Program on page 7 of the minutes. The Commission passed a motion which would amend the Joint Powers Agreement between the State Water Commission and the Garrison Diversion Conservancy District to allow a non-profit cooperative to be eligible for funds under the Garrison MR&I Program providing there are no state funds granted to the project. The section of the Joint Powers Agreement was amended, as follows (amended language underlined):

3.1 Only projects sponsored by a governmental entity or political subdivision are eligible for consideration for assistance under the program and may make application if a grant or loan of State funds are involved.

Concern was expressed that the amended language may not clearly reflect the Commission's intent and directed the State Engineer to clarify the language in the amended section of the Joint Powers Agreement. (A clarification explanation will be provided at the December 9, 1987 Commission meeting.)

Note: (See Minutes of December 9, 1987, Page 84, for adoption by consensus of clarification statement to above amendment to Joint Powers Agreement.)

It was moved by Commissioner Guy, seconded by Commissioner Narlock, and unanimously carried, that the minutes of September 8, 1987 be approved.

CONTINUED DISCUSSION ON
DEVILS LAKE OUTLET PROJECT
(SWC Project No. 1712)

Commissioner Spaeth, a member of the Devils Lake Outlet Committee, updated the Commission members on the progress of this Committee appointed by Governor Sinner to evaluate problems in the Devils Lake Basin and develop a recommendation to determine the best course of action to satisfy these problems. Commissioner Spaeth discussed the Committee's suggestions for flood control and stated the Committee is also considering the recreational concerns of the local community for freshening the lakes.

Commissioner Spaeth indicated it is the intent of the Committee to present its recommended plan to the Governor by January, 1988.

UPDATE ON SOUTHWEST
PIPELINE PROJECT
(SWC Project No. 1736)

At the September 8, 1987 meeting, the Commission members requested staff to prepare a map showing the locations of contracts for the Southwest Pipeline Project and to also provide information showing the detailed cost breakdown for this project. Dale Frink, Manager of the Southwest Pipeline Project, distributed copies of this information and provided an explanation.

Mr. Frink provided the Commission members with a progress report indicating that Contracts 2-2A and 2-2B have been completed and Contract 2-2E is also scheduled to be completed in 1987. The contractor has approximately 50 percent of the pipe laid for Contracts 2-2C and 2-2D scheduled to be completed in 1988. Mr. Frink stated at the end of the 1987 construction season approximately 41 miles of pipe will have been laid for the Southwest Pipeline Project.

Mr. Frink discussed rock problems that are being encountered during construction, and made reference to the overall excellent public relation aspects with the landowners.

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The federal requirements for bid advertising were discussed, and Mr. Frink indicated Contract 2-2F for 11.1 miles has been advertised with the bid opening scheduled for December 3, 1987. He noted the engineers are making some design changes on Contracts 2-3A and 2-3B and contingent upon the amount of federal money received in 1988 it may be possible to advertise for bids on these two contracts.

GARRISON DIVERSION PROJECT -
STATUS REPORT ON INTER-BASIN
BIOTA TRANSFER STUDY
(SWC Project No. 1828)

On February 13, 1987, the State Water Commission entered into a contract with the North Dakota Water Resources Research Institute on the Inter-Basin Biota Transfer Study relative to the identification and analysis of Canadian concerns regarding the Garrison Diversion Unit in North Dakota, and approved cost sharing for the study in the amount of \$5,000.

Dr. Jay Leitch, Associate Director for the Water Resources Institute, made a presentation to the Commission members updating them on the progress of the study. Dr. Leitch reviewed the activities of a North Dakota concerns analysis group which attempted to sort out the science issues and the political issues that have been identified, and discussed a draft request for pre-proposals that will be sent to potential researchers in Minnesota, North and South Dakota, Nebraska, Montana and Manitoba in both public and private institutions that have interest and expertise in these areas. The request for pre-proposals is attached hereto as APPENDIX "A".

Dr. Leitch stated the authors of the pre-proposals selected on the basis of relevance, qualifications, budget and schedule will be asked to develop detailed technical project proposals. He said there is limited financial assistance available for preparing the detailed proposals, and that there could be up to \$100,000 per year available to fund projects over the next several years.

Commissioner Guy presented comments relative to the background of the Inter-Basin Biota Transfer Study and concluded by commending Dr. Leitch for his leadership in attempting to deal with a variety of biota transfer issues.

The Commission members concurred with Commissioner Guy's comments and also stressed the urgency of proceeding with the project as soon as possible. Alternative sources for funding projects were discussed.

Commissioner Lardy cautioned against providing research data that would support or provide a pre-determined conclusion because, he said, if this is done the results will not be accepted. Commissioner Lardy said he is concerned that it will be necessary for the State Water Commission to address the use of coal slurry pipelines in a similar manner in which the transfer of water from one watershed to another is being addressed.

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UPDATE ON SHEYENNE RIVER
FLOOD CONTROL PROJECT
(SWC Project No. 1344)

Secretary Fahy briefed the Commission members on the Sheyenne River Flood Control Project and indicated the Water Resource Boards are negotiating with the Corps of Engineers on local cost sharing arrangements for the project.

STATUS REPORT ON
RED RIVER DIKING
(SWC Project No. 1638)

David Sprynczynatyk, Director of Engineering for the State Water Commission, stated October 31, 1987 is the deadline date mandated by the Federal Court requiring that all dikes on the North Dakota and Minnesota sides of the Red River be brought into compliance with the Agreement. Mr. Sprynczynatyk indicated that in discussions with Minnesota representatives it appears nearly all Minnesota dikes will be in compliance by the October 31 deadline.

Relative to the dikes on the North Dakota side of the Red River, Mr. Sprynczynatyk said there are approximately ten landowners who have work remaining. This work remains from diking efforts that were undertaken last year. Staff is surveying the dikes at the present time to determine final compliance. Mr. Sprynczynatyk alluded to some of the problems that are being experienced during the dike surveys but indicated he is certain that nearly all of the dikes on the North Dakota side will also be in compliance by the October 31 deadline.

Mr. Sprynczynatyk stated future water management efforts in the States of North Dakota and Minnesota are being discussed and indicated it has been agreed by both states that after the dike issue has been resolved the two states will continue to work together toward effective water management to reduce the flood problems along that stretch of the Red River.

STATUS REPORT ON SOURIS
RIVER FLOOD CONTROL
(SWC Project No. 1408)

Secretary Fahy provided background and status reports relative to the Souris River Flood Control Project. He said although the prognosis for the project appears good at this time some questions relative to water quality have been encountered. The State Health Department is currently working with Canada to resolve the water quality questions.

GARRISON DIVERSION PROJECT -
STATUS REPORT ON GARRISON
MR&I PROGRAM
(SWC Project No. 237-3)

David Sprynczynatyk provided background and status reports relative to the Garrison Diversion MR&I Program, and stated that 53 requests have been received from communities and rural water districts for funding from the MR&I Program. The requests were reviewed and Mr. Sprynczynatyk explained the procedure that has been adopted by the State Water Commission and the Garrison Diversion Conservancy District to determine eligibility for MR&I funds.

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GARRISON DIVERSION PROJECT -
NORTHWEST REGIONAL SYSTEM
(SWC Project No. 237-3)

David Sprynczynatyk stated that during the development of the needs assessment for the Garrison MR&I Program by the State Water Commis-

sion and the Garrison Diversion Conservancy District, the northwest corner of the state was identified as an area for development of a potential regional water system. This area could involve nine counties including Minot and several other cities. Mr. Sprynczynatyk indicated that recently there has been interest from several cities in that area that would like to improve their water supplies.

Secretary Fahy indicated he has discussed a joint effort with the Conservancy District to undertake a reconnaissance study of the area to determine the potential for a regional water supply system. He stated the Conservancy District has approved proceeding with development of a reconnaissance study that would likely include a thorough needs study and the identification of potential sources of water supply and, time allowing, the study may include the identification of potential schemes for delivery of the water. The work should be completed by the 1989 Legislative Session and should be eligible for funding under the Garrison MR&I Program.

Because of the relatively limited time frame, Secretary Fahy indicated it is necessary to move rapidly on the study. It was the recommendation of the State Engineer that the State Water Commission approve involvement in development of a reconnaissance study which may include retaining a consulting engineer. Secretary Fahy indicated detailed information relative to how this study can proceed and estimates of costs will be available at the Commission's December meeting.

It was moved by Commissioner Jones and seconded by Commissioner Byerly that the State Water Commission authorize the State Engineer and staff to proceed in the development of a reconnaissance study of the Northwest Regional System and that detailed information relative to the study and costs be provided for the Commission's consideration at its December meeting.

Because of the uncertainty of federal funding in the future for projects from the Garrison MR&I Program, Commissioner Lardy expressed concerns that if the State Water Commission becomes involved in major projects in addition to the Southwest Pipeline Project there is the possibility of over-extending our capabilities. Commissioner Lardy stated he does not want to put the State of North Dakota in the position of having to face the problem of deciding how to handle the projects if funding should become insufficient - "we have the projects started and how are we going to finish them".

Commissioners Byerly, Guy, Jones, Narlock, Spaeth, and Chairman Omdahl voted aye. Commissioner Lardy voted nay. Recorded vote was 6 ayes; 1 nay. The Chairman declared the motion passed.

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CONSIDERATION OF RELEASE
OF EASEMENT RELATIVE TO
WATER PERMIT IN ADAMS COUNTY

Rosellen Sand, Assistant Attorney General for the State Water Commission, presented a request for the Commission's consideration that would release an easement and dedication covering the SW $\frac{1}{4}$ of Section 1, Township 129 North, Range 94 West, in Adams County. Ms. Sand explained a water permit was obtained in the mid-1930's to build a dam and the State received a public easement to that dam. The public has never exercised that easement and the dam is now being used for stockwater and irrigation purposes.

Ms. Sand indicated that because the easement and dedication has been abandoned for a period exceeding ten years it is recommended the Commission find that releasing the easement would be in the best interest of the State of North Dakota.

It was moved by Commissioner Guy and seconded by Commissioner Lardy that because the dam in Section 1, Township 129 North, Range 94 West, in Adams County, is no longer useful to the State, and the release of the Easement and Dedication covering the SW $\frac{1}{4}$ of Section 1, Township 129 North, Range 94 West, in Adams County, is in the best interest of the State, the State Water Commission release the Easement and Dedication for good and valuable consideration.

Commissioners Byerly, Guy, Jones, Lardy, Narlock, Spaeth, and Chairman Omdahl voted aye. There were no nay votes. The Chairman declared the motion unanimously carried. (Release of Easement attached hereto as APPENDIX "B")

CONSIDERATION OF AGENCY
FINANCIAL STATEMENT

Matt Emerson, Director of Administration for the State Water Commission, reviewed the Projects Authorized and the State Water Commission Program Budget Expenditures, dated September 30, 1987.

NORTH DAKOTA WATER USERS
ASSOCIATION ANNUAL CONFERENCE

The North Dakota Water Users Association Annual Conference is scheduled for December 7-8, 1987 in Jamestown. The State Water Commission members concurred with Secretary Fahy's recommendation to schedule a Commission meeting on December 9, 1987 in conjunction with the Conference.

CONSIDERATION OF REQUEST FROM
CITY OF GRAND FORKS FOR COST
SHARING FROM RESOURCES TRUST
FUND IN GRAND FORKS
RIVERSIDE PARK DAM
(SWC Project No. 520-2)

David Sprynczynatyk indicated that for several years the State Water Commission has been involved with the City of Grand Forks in the major repairs and upkeep of the Grand Forks Riverside Park Dam, which provides the water supply for

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the city. In 1978, the state completed a major repair with the city and at that time it was determined the structure, which was built in 1925, could fail at any time. The city then asked the State Water Commission to investigate a new dam. A preliminary engineering report for the city was completed in 1984. The report recommended a new dam be built as soon as possible because of the uncertain life expectancy of the 60-year old dam.

Since January, 1986, the State Water Commission has been working with the city on the final design for the dam and at that time the State Water Commission agreed to prepare final design plans for the project. David Sprynczynatyk indicated that late last year the decision was made for the dam to be constructed utilizing the Garrison Diversion MR&I funds. The total cost of the structure is estimated at \$2.4 million. Twenty-five percent, \$600,000, is required as a non-federal share.

Mr. Sprynczynatyk presented a request from the City of Grand Forks for the Commission's consideration for a loan from the Resources Trust Fund in the amount of \$600,000 for the city's non-federal share of the project. That loan would be over a 50-year period at approximately 6½ percent interest. Mr. Sprynczynatyk explained this reflects the policy agreed to by the State Water Commission and the Garrison Diversion Conservancy District in the development of the MR&I Program. Mr. Sprynczynatyk said the exact interest rate would be based on FmHA guidelines at the time of execution of the agreement.

It was the recommendation of the State Engineer that the State Water Commission approve the loan from the Resources Trust Fund under these terms, and since approximately \$75,000 has already been spent on the project this amount should be considered part of the loan for the non-federal share.

Mr. Sprynczynatyk stated the City of Grand Forks has also requested consideration be given by the State Water Commission for cost participation in the construction of a 2.7 megawatt hydropower unit at the dam. Earlier studies completed by the city showed it would be marginally feasible to construct a unit and market the power to Northern States Power. The cost estimate for this hydropower unit is approximately \$3.8 million. Mr. Sprynczynatyk stated that a recently discovered survey error will negate the results of the earlier feasibility study and new information would be available in the near future. Mr. Sprynczynatyk said that in any case since the hydropower unit would provide a vendible product for the city, it is recommended that the State Water Commission not cost participate in the hydropower unit. If the hydropower option is feasible, Mr. Sprynczynatyk stated it is recommended that the State Water Commission provide technical assistance to the city in the development of the hydropower unit to include engineering for the foundation and basic structure for the equipment. The costs for the technical assistance would be reimbursed by the city.

Frank Orthmeyer, City Engineer for Grand Forks, further discussed the project and the loan request, and urged the Commission's favorable consideration of the City's request for a loan from the Resources Trust Fund for the city's non-federal share of this project.

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In discussion of this request, concern was expressed by the Commission members relative to setting a precedent of approving long-term loans from the Resources Trust Fund for water development projects at a subsidized rate of interest.

The Garrison MR&I Program, which came into effect in May, 1986, authorized federal funding for eligible water resource development projects on a matching basis of 75 percent federal funds and 25 percent non-federal funds. The State Water Commission and the Garrison Diversion Conservancy District examined alternatives for funding the non-federal costs of water development projects. In the needs assessment report, approved in February, 1987 by the State Water Commission and the Garrison Diversion Conservancy District, one of the policies provides for non-federal cost sharing to communities and rural water areas from the Resources Trust Fund and specifically states that loans be made essentially under the FmHA guidelines. Mr. Sprynczynatyk explained that the FmHA rate of interest is a subsidy but the intent is to provide assistance to utilize a portion of the federal MR&I program to those communities and rural areas who are unable to develop their water resource projects.

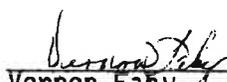
It was moved by Commissioner Narlock and seconded by Commissioner Byerly that the State Water Commission defer action on the request from the City of Grand Forks for a loan from the Resources Trust Fund for non-federal cost sharing in the Grand Forks Riverside Park Dam project, and that this item be placed on the agenda for the December 9, 1987 Commission meeting for further consideration.

Commissioners Byerly, Guy, Lardy, Narlock, Spaeth, Jones, and Chairman Omdahl voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

The State Engineer and staff were directed to provide the Commission members with a chronological report of the Resources Trust Fund prior to the December Commission meeting.

There being no further business to come before the State Water Commission at this time, it was moved by Commissioner Lardy, seconded by Commissioner Narlock, and unanimously carried, that the meeting adjourn at 2:00 p.m.

ATTEST:



 Vernon Fahy
 State Engineer and Secretary



 George A. Sinner
 Governor-Chairman

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NORTH DAKOTA STATE WATER COMMISSION

REGISTER

ATTENDANCE AT State Water Commission Meeting

DATE October 30, 1987 PLACE Bismarck, N.D.

PROJECT NO. _____

Your Name	Your Address	Who do you Represent? (Or Occupation)
DAVID SPRYNGAL	Bismarck	SWC
Wale Frink	"	SWC
Jay Leitch	Fargo	ND WRI, NDSU
GENE KIENZ	BISMARCK	SWC
Karen Keil	Bismarck	USFWS
Sheryl Massey	Bismarck	Basin Electric P.C.
O.J. Gurd, Sr.	Devils Lake Sioux Tribe	
Laduan Klockmann	Itates ND	Water Resources Standing Rock Sioux Tribe
Dennis Nelson	Bismarck	SWC
Bob Dorothy	Bismarck	N.D. Water Users
Frank Orthmeier	Grand Forks	City Engineer

(To: Public and private research organizations in Minnesota, Montana, Nebraska, North and South Dakota, and Manitoba.)

REQUEST FOR PRE-PROPOSALS

The North Dakota Water Resources Research Institute seeks research pre-proposals on the general topic of biota transfer between major watersheds. Of specific interest is the potential for biota transfer between the Missouri Basin and the Hudson Bay drainage relative to the Garrison Diversion Unit. See the attached schematic and list of sample objectives. Proposals for both basic and applied research are welcomed.

Pre-proposals, no longer than 2,000 words, should contain the following:

Cover Letter (not included in word count) including a statement of willingness to prepare a detailed technical project proposal.

- I. Statement of Research Problem
- II. Objectives
- III. Scope
- IV. Previous work (of others and your own in this area)
- V. Procedure(s)/Method(s)
- VI. Duration of study
- VII. Qualifications of investigator(s)
- VIII. Budget

Authors of pre-proposals selected on the basis of relevance, qualifications, budget, and schedule will be asked to develop detailed technical project proposals. Limited financial assistance is available for preparing detailed proposals. Up to \$100,000 per year may be available to fund projects over the next several years.

Limited scope, smaller scale research projects are favored over comprehensive projects. However, if substantial economies can be demonstrated by combining various aspects of biota transfer into a single research project, consideration will be given to funding a larger-scale project.

Pre-proposals should be sent by _____ 1987 to:

GDU Biota Transfer Studies
North Dakota Water Resources Research Institute
Old Main, Box 5790
North Dakota State University
Fargo, ND 58105

Questions regarding pre-proposal preparation can be directed to Dr. Jay A. Leitch, Associate Director, ND WRRRI, 701-237-7467.

Examples of Potential Research Objectives:

Assess the impact of rainbow smelt (or Utah chub, shortnose gar, gizzard shad) on communities where it is known to exist (e.g., Lake Audubon) and identify factors affecting its rate of dispersal.

Identify factors affecting dispersal of fish pathogens, invertebrates, and aquatic vegetation in the McClusky Canal and associated lakes.

Identify modes and likelihood of overland dispersal of aquatic organisms, including possible dispersal by birds and other animals, via connections from GDU operations to nearby waterbodies.

Identify modes and likelihood of groundwater transport of aquatic organisms via subsurface connections from GDU operations to nearby surface waterbodies and underground aquifers.

Identify modes and likelihood of transport of human and fish pathogens via municipal and industrial water supply systems and via operational features of irrigation systems. Factors to be assessed include water treatment facilities and sand filters.

Identify the range of biota and pathogens that exist in the Missouri River drainage that are absent in the Hudson Bay drainage. Identify factors affecting dispersal. Key species include rainbow smelt, gizzard shad, Utah chub, and shortnose gar.

Assess the likelihood and mechanisms of community and species responses to introduction of saline waters into the Sheyenne River via drainage from Devils Lake.

Describe the biogeographic, life history, and evolutionary aspects of Polypodium hydriforme (or any other relevant fish pathogen), a parasite of sturgeon and paddlefish.

Describe the ecosystem structure of prairie headstream areas where climatic conditions create unstable habitat conditions with respect to biota of concern.

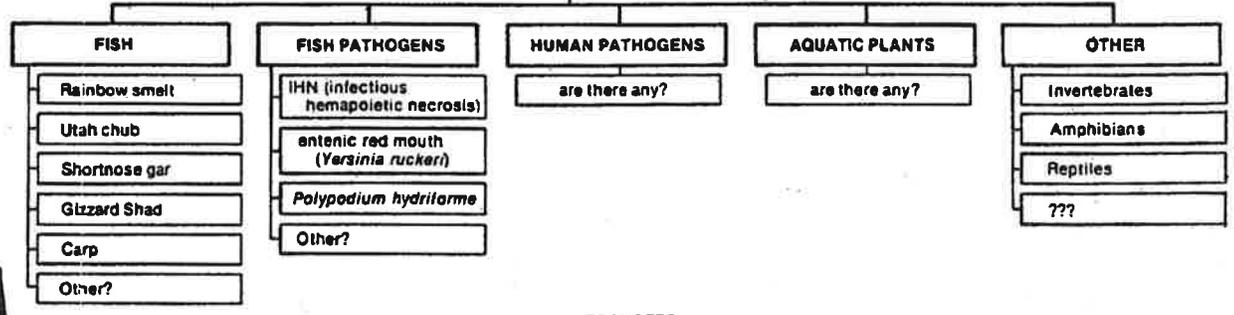
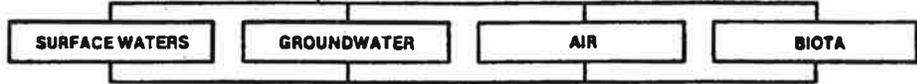
Identify and describe other cases in interbasin water transfer in the United States and Canada. Specifically describe any biota transfer issues and subsequent occurrences.



GARRISON DIVERSION UNIT - INTERBASIN WATER TRANSFER

BIOTA TRANSFER

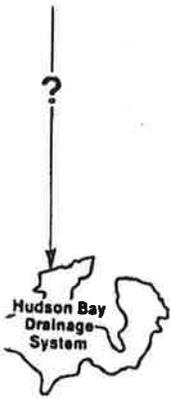
ALL OTHER ISSUES



TRANSFER MEDIUMS ?

TRANSFER MECHANISMS ?

TRANSFER SPECIES/BIOTA ?



TRANSFER EFFECTS ?

Ecologic Pathologic Biologic Economic

Trophic interactions; competition w/natural base; GDU water quality effect on transfer survival

APPENDIX "B"

RELEASE OF EASEMENT

The State of North Dakota acting by and through the Governor and Secretary of State, and upon the approval of the State Water Commission of the State of North Dakota (Grantor) for and in consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid by Roger Wilson (Grantee), the receipt of which is hereby acknowledged, hereby grants, releases and surrenders unto Grantee all right and interest granted to the State of North Dakota under an "Easement and Dedication" described below:

An Easement and Dedication covering the SW1/4 of Section 1, Township 129 North, Range 94 West, in Adams County, North Dakota, as executed by Boyd Byron Bobb and recorded in the Register of Deeds for Adams County in Miscellaneous Book 14 on page 481.

Which easement and dedication has been abandoned by Grantor for a period exceeding ten (10) years and the release of which the State Water Commission has determined to be in the best interest of North Dakota.

IN WITNESS WHEREOF, the State of North Dakota has caused the release to be executed in its name by the Governor and attested by the Secretary of State, and the seal of the State affixed this 22nd day of October, 1987.

STATE OF NORTH DAKOTA

By George A. Sinner
 GEORGE A. SINNER
 Governor of North Dakota

ATTEST:

Ben Meier
 BEN MEIER
 Secretary of State

(SEAL)

STATE OF NORTH DAKOTA)
COUNTY OF BURLEIGH)

On this *22nd* day of *October*, 1987, before me, a Notary Public of Burleigh County, North Dakota personally approved the Honorable George H. Sinner known to me to be the Governor of North Dakota, and the Honorable Ben Meier, known to me to be the Secretary of the State, and acknowledged to me that the State of North Dakota executed the within and foregoing Release of Easement.

Robert R. Schaible

Notary Public

My Commission expires:

ROBERT R. SCHAIBLE

Notary Public, STATE OF NORTH DAKOTA

My Commission Expires NOV. 7, 1990

(SEAL)