

## MINUTES

North Dakota State Water Commission  
Meeting Held At  
Walhalla, North Dakota

September 15 and 16, 1977

The North Dakota State Water Commission held a meeting on September 16, 1977, at the Walhalla Country Club. Governor-Chairman, Arthur A. Link, called the meeting to order at 9:00 a.m., and introduced Commission members, the State Engineer and State Water Commission staff members. Governor Link expressed appreciation and thanks to Walhalla officials for the hospitality shown the Commission during the past two days. Secretary Vernon Fahy was then asked to present the agenda.

MEMBERS PRESENT:

Arthur A. Link, Governor-Chairman  
Alvin Kramer, Member from Minot  
Gordon Gray, Member from Valley City  
Arthur Lanz, Member from Devils Lake  
Myron Just, Commissioner, Department of Agriculture, Bismarck  
Vernon Fahy, Secretary and State Engineer, North Dakota  
State Water Commission, Bismarck

MEMBERS ABSENT:

Richard Gallagher, Vice Chairman, Mandan  
Arlene Wilhelm, Member from Dickinson

OTHERS PRESENT:

State Water Commission Staff Members  
Leon Dubourt, Mayor, City of Walhalla  
Homer Engelhorn, Manager, Garrison Diversion Conservancy District, Carrington  
Grant Trenbeath, Neche  
Russ Dushinske, North Dakota Water Users Association, Minot  
Dennis Riggin, President of City Commission, Devils Lake  
James Leander, City Engineer, Devils Lake  
Other interested observers

Proceedings of this meeting were tape recorded to assist in compilation of the minutes.

Attendance Register of approximately 20 persons is on file in the State Water Commission office for the meeting held September 15 and 16, 1977 (filed with official copy of minutes).

CONSIDERATION OF MINUTES  
OF AUGUST 16, 1977 -  
APPROVED

Secretary Fahy called the Commission's attention to an error on page 2 of the minutes of August 16, 1977. In the discussion approving Indian Creek Dam, the proposed share of the costs for the Bureau of Outdoor Recreation Agency was listed as \$190,000, and it should have read \$250,000. This correction changes the total estimate of the proposed project from \$500,000 to \$780,000.

It was moved by Commissioner Lanz that the necessary corrections be made as requested by the State Engineer. The motion was seconded by Commissioner Kramer. All members voted aye, and the motion carried.

Secretary Fahy briefly reviewed the minutes from the August 16, 1977 meeting. There being no discussion on the minutes -

It was moved by Commissioner Kramer, seconded by Commissioner Gray, and carried, that the minutes as amended be approved as presented.

CONSIDERATION OF A REQUEST FOR  
SWC FINANCIAL PARTICIPATION IN  
CONSTRUCTION OF CASS COUNTY  
DRAIN NO. 47  
(SWC Project No. 1095)

Secretary Fahy presented a request from the Cass County Drain Board for State Water Commission financial participation in the construction of Cass County Drain No. 47. Participation in the construction of this drain had been previously discussed and final action was deferred because of some question as to the qualified items.

The original request from the Drain Board was for \$18,842, and upon further investigation by the Commission staff, it is recommended that this amount be decreased to \$17,162. The reduction is for deferred maintenance and erosion. The erosion damage was caused by failure of the Board to install the drop structure as recommended by the State Water Commission in May, 1970.

It was recommended by the State Engineer that the Commission participate in the amount of \$17,162 for the construction of Cass County Drain No. 47.

It was moved by Commissioner Gray that the Commission participate in the construction of Cass County Drain No. 47 in an amount not to exceed \$17,162, subject to the availability of funds. The motion was seconded by Commissioner Lanz. All members voted aye; the motion carried.

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HEARING ON PROPOSED STATE  
ENGINEER'S REGULATIONS FOR  
THE APPROPRIATION OF WATER  
(SWC Project No. 1400)

Because of changes made in the laws governing the administration of the water laws of North Dakota by the last session of the Legislature, there is a mandate that rules and regulations

be developed to go with the laws.

Secretary Fahy presented "Chapter 4 - Procedure to Apply For A Conditional Water Permit", and indicated that this is the initial step in regulations insofar as water permit administration is concerned. These regulations refer almost entirely to the office procedure necessary to apply for a water permit. He explained that under the new regulation, the application for a conditional water permit and the actual conditional water permit will be two separate documents.

He stated that the Commission will be receiving at future meetings other sections of the law which will be in regulation form for consideration.

It was recommended by the State Engineer that the Commission grant its approval to Chapter 4 relative to the procedure of applying for a conditional water permit.

It was moved by Commissioner Gray that the Commission accept the changes as presented in "Chapter 4 - Procedure To Apply For A Conditional Water Permit". The motion was seconded by Commissioner Lanz. All members voted aye and the motion carried.

RELEASE OF EASEMENT

Secretary Fahy presented APPENDIX "A", which is a request for a release of three easements in Bowman County for Spring Lake Dam. The last session of the Legislature provided the State Water Commission the authority to release easements without going through legislative action when the project is no longer feasible. It was recommended by the State Engineer that such easements be released as described in APPENDIX "A".

It was moved by Commissioner Just that the Commission release the easements to Spring Lake Dam in Bowman County. Commissioner Gray seconded the motion. All members voted aye; the motion carried. (SEE APPENDIX "A")

STATUS REPORT OF PROPOSED  
PEMBILIER DAM AND OTHER  
ACTIVITIES IN PEMBINA  
BASIN  
(SWC Project Nos. 567, 871  
and 1539)

Dave Sprynczynatyk, Director of Engineering for the State Water Commission, discussed with the Commission members projects and problems involving the Commission in the Pembina Basin.

In answer to a question which was asked

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during the tour of the proposed Pembilier Dam the previous day - "how many acre-feet will be reserved for flood storage", Mr. Sprynczynatyk replied that approximately 128,000 acre-feet of capacity would be reserved over and above the permanent pool. He then recalled some of the background of the proposal noting that the estimated cost of the project is approximately \$25 million.

Recent correspondence from Congressional delegates indicates that the Corps of Engineers is preparing the final environmental impact statement which must accompany the report to the Secretary of the Army; this is scheduled to be completed by October, 1977. After the Secretary of Army has approved the project and coordination and agreement has been granted by the Office of Management and Budget, it will then be transmitted to Congress for action.

He reported on the Pembina River snagging and clearing project which involves the State Water Commission. In October, 1974, the Pembina County Water Management District adopted a resolution requesting the Corps of Engineers to snag and clear the Pembina River in all areas that flow in the United States to improve the flow of water. The Corps broke the project up into three reaches 1) mouth of Pembina River to confluence with Tongue River; 2) confluence with Tongue River to Neche; and 3) Neche to Walhalla. The State Water Commission participated with the Corps in this feasibility study.

In 1975, a report was released from the St. Paul Corps of Engineers that it was only feasible to snag and clear the lower 33 miles of the river from Neche to the mouth of the Pembina River near Pembina. The District Engineer recommended immediate construction of the project at a total cost of \$278,900, of which the federal cost would be \$250,000.

In January, 1976, a meeting was held with representatives of the Fish and Wildlife Service, State Game and Fish Department, the Pembina County Water Management District, and the State Water Commission. As a result of this meeting, it was determined that an environmental impact statement would be necessary. This delayed the project approximately 18 months.

In June, 1977, Governor Link received a letter from Colonel Gay of the St. Paul Corps of Engineers indicating they are prepared to implement construction from the mouth of the Pembina River to Neche provided that they receive a commitment of intent from the local entity that they would obtain the necessary easements and a willingness to fulfill the items of local cooperation. The estimated local share has been increased from \$28,900 to \$77,000 due to the price level increase in the intervening two years and the \$250,000 federal limitation. Upon completion of the snagging and clearing project, the local sponsor would be required to pay all costs in excess of \$250,000.

In early September, 1977, the letter from the Corps was submitted to the Pembina County Water Management District requesting the Water Management District to be the local entity that sponsors this project. It was also indicated to the Water Management District that funds may be provided by the State Water Commission for this project.

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To date, no reply has been received from the District, but verbal discussions indicate that the District is anxious to get the project underway.

Another project in the Pembina Basin which involves the State Water Commission is known as Fremont Township Dam.

During the summer of 1970, the Cavalier County Water Management District requested the State Water Commission to investigate the feasibility of construction of one or more detention dams in Fremont Township, Cavalier County. The prime purpose in the proposed project would be the reduction of fast runoff spilling into the problem area during snowmelt and heavy rains.

In December, 1970, an investigation agreement was forwarded to the Cavalier County Water Management District for the investigation of a detention dam to be located in Fremont Township.

In the fall of 1971, a topographic survey and preliminary soils investigation was conducted of a dam site on Buffalo Creek in Section 3, Township 163 North, Range 57 West. This site was chosen over several other sites within the watershed because of its greater flood storage capacity. Predesign cost estimates were estimated at \$300,000 for the dam. This does not include land required or any channel construction or improvement. At that time, further design work on the dam was delayed pending disposition of proposals for Cavalier and Pembina County Water Management Districts.

In the summer of 1976, the Cavalier County Water Management District requested the State Water Commission to resume investigations of the Fremont Township Dam. Engineering design and specifications by Commission personnel are being delayed until a final stability analysis of the embankment design by Soil Exploration Services is finalized. It does appear from previous investigations, that the project is feasible and would be constructed as a dry dam.

General discussion pursued relative to the proposed Pembilip Dam and comments were heard from Mr. Grant Trenbeath of Neche.

Secretary Fahy stated that the public hearing on the general plans for the proposed dam had been held and during that hearing there were no statements filed in opposition to the project.

Secretary Fahy discussed the road-dike situation along the United States-Canadian border, which was toured the previous day.

He stated that when this problem first surfaced and the elevation was raised backing the water on the south side of the border, an attempt was made to get the International Joint Commission involved

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to work out a bi-national solution through the IJC. The IJC refused to accept jurisdiction of the matter, calling it "casual water".

As an alternative, Provincial, State and local government units met to try to work out some sort of an arrangement that everyone could live with; this resulted in the creation of an Ad Hoc Committee composed of the Province, the State, local county units of government, and a representative on each side from the Federal Government. The Committee developed an initial report agreeing upon size of openings in the dike to handle agricultural flows without respect to spillover from the Pembina River.

There were some problems with the original report so it was reconsidered with a different Ad Hoc Committee. Agreement has now been reached with local, State and Province on the size of openings in the dike and also providing that there would be a depressed section in the dike so that if there was excessive agriculture flow, both nations would share in the flooding. Normal flows would pass through the openings designed. This will require that drainage would be done both in Canada and the United States and that the costs will be shared between the two nations on the basis of the respective drainage areas. The provisions of this agreement cannot be invoked entirely until after the Pembilier Dam has been built because this agreement calls for handling only agricultural flows and not floods from the Pembina River. The agreement, for the most part, is conditional upon the construction of Pembilier Dam.

Secretary Fahy stated that Allen Fisk of the Soil Conservation Service, is going to meet with the State Department and his agency to try to obtain funds for the first section of the project, which would be in the western reaches (the Buffalo Reach), in which there would be drain features and/or retention installations in both Canada and the United States. He indicated that the reports sound favorable for the first section of the project.

At this time, Governor Link invited public comments or questions relative to the discussion on projects in the Pembina Basin.

Paul Krory advised the Commission of many problems associated with Rush Lake located near Langdon.

Secretary Fahy stated that this item is not on the agenda for this meeting, but it is hoped that the Commission can have a meeting in the area so this problem can be viewed. The State Water Commission has been advised of the fact there is litigation pending on the Rush Lake matter and that the level of the lake needs to be set. A complete aerial survey has been completed and the State Engineer will be in a position to present recommendations at a future Commission meeting.

Grant Trenbeath commended the Governor, the Commission and the State Engineer and his staff for its assistance and

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guidance in the efforts related to the proposed Pembilier Dam.

DISCUSSION AND STATUS  
REPORT ON GARRISON DIVERSION  
PROJECT  
(SWC Project No. 237)

Secretary Fahy stated that the International Joint Commission's report on the Garrison Diversion Project is scheduled for release in Washington, D. C. on this date at 10:00 a.m.

Homer Engelhorn, Manager of the Garrison Diversion Conservancy District, was introduced to update the Commission on some of the current issues of the Garrison Project.

Mr. Engelhorn noted that at the Conservancy District's July Board meeting, it was recommended that a "North Dakota Impact Statement" be developed, which would project the extent of impacts in North Dakota if the Garrison Diversion Project was not built or authorized, or if some modifications were made. A committee composed of representatives from the Governor's Office, the Attorney General's Office and the Conservancy District, in its deliberations concerning development of such a statement, agreed that a coordinator should be hired for approximately one year who would have the following responsibilities: 1) to make an analysis of what is happening with the Bureau of Reclamation with the so-called supplemental Environmental Impact Statement when such information becomes available; 2) be responsible for the State Impact Report, or the Peoples Plan; and 3) analyze any recommendations made by the International Joint Commission. The coordinator would also obtain data for use when appearing before Committees in Congress, and to get a counter proposal made by the Department of the Interior or to support the present authorized appropriations.

To initiate the State Impact Report, Dr. Anderson at North Dakota State University has been contacted to submit a proposal to the Conservancy District's Board meeting on the economics, addressing this study to the losses in North Dakota without the project.

Governor Link asked several questions regarding composition of the IJC and appropriation of funds.

Commissioner Kramer suggested that Commission members should attend the Conservancy District's quarterly meetings along with the State Engineer and members of his staff to receive an updating themselves in addition to the State Engineer's briefing that is provided the Commission members.

Commissioner Kramer suggested that perhaps the Governor could consider taking under advisement the selection of one Commissioner to attend the quarterly meetings of the Conservancy District and report his observations at the Commission meetings. (This item was tabled until later on in the meeting.)

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REPORT ON CURRENT STATUS  
OF UPDATE OF COMPREHENSIVE  
STATE WATER RESOURCE PLAN  
(SWC Project No. 322)

Mark Johnson, Resources Planner for the State Water Commission, reported on the ongoing effort involved in updating North Dakota's Comprehensive State Water Resource Plan.

Mr. Johnson stated that the Planning Division of the State Water Commission has begun looking at approaches for updating the Comprehensive State Water Resource Plan, and at different areas that need to be developed in the plan as well as a detailed approach to actual implementation of the plan.

He stated that to date 21 states and each river basin commission have been contacted who have either contemplated a state water plan, completed such a plan, or who have updated such a plan. From communication with other states, data and information will be extracted to assist in updating North Dakota's plan.

Within the next six months, it is hoped that a framework plan of study can be developed for the Commission's consideration. This framework plan will include the goals and objectives of a comprehensive state water plan, different approaches to delineating areas within the state, a varied amount of problems that are involved in a state water plan, discuss the various needs that are involved in such a plan, the organization and management of the study, participation and input of various state agencies in the coordination of the study, involvement of river basin commissions, task force approaches, and public participation.

Mr. Johnson distributed and commented on information relating to the Idaho Water Plan's public participation program, which is being used as a model plan by many states involved in developing a state water plan. He indicated that it is important for the Commission to decide to what degree the public should be involved in the plan.

Mr. Johnson suggested that the Commission staff develop a time frame whereby various activities and sections of the plan can be presented for the Commission's consideration and review.

Secretary Fahy commented on the North Dakota plan that was adopted in 1967, which indicated that state planning in North Dakota should be done on a river basin basis. This effort was undertaken and includes the West River Study which is a combination of five river basins, the Souris-Red-Rainy River Basins Study and the Goose River Study. He indicated that funds are available in the budget to continue the planning process for this biennium, but that additional funds will be requested for the next biennium.

North Dakota is a member of the Missouri River Basin Commission, which includes 10 states within the Missouri River Basin. The characteristics of the Missouri River are vastly different below Sioux City, where navigation is the prime concern. In the upper basin states above

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Sioux City, the concerns are agriculture development of the states in which the water originates. Governor Link and Secretary Fahy discussed the need for the upper basin states of North and South Dakota, Montana and Wyoming to establish a collective relationship to develop a regional plan and to form a communication exchange structure. This relationship could be initiated from the Governor's offices of each of the four states.

Governor Link noted the close working relationship with the the Governors of the Old West Regional Commission (includes States of North and South Dakota, Montana, Wyoming and Nebraska), and volunteered to discuss the matter of a collective relationship of the upper Missouri River Basin states relating specifically to water with these Governors if so desired by the Commission.

After further discussion, it was the consensus of the Commission members that Governor Link initiate such a discussion with the Governors of the Old West Regional Commission.

**CHANNEL "A" STATUS REPORT  
(SWC Project No. 842)**

Management Districts have approved the work for the project and have signed the contracts with William Clairmont, Contractor of Bismarck. Work is anticipated to commence in approximately two weeks.

Dave Sprynczynatyk reported on the status of the Channel "A" project stating that both Cavalier and Ramsey County Water

**SELECTION OF A MEETING DATE  
FOR DISCUSSION OF ADOPTION  
OF WATER USE FEES FOR  
INDUSTRIAL USE**

for further discussion at a future meeting.

Secretary Fahy recalled that sometime ago, the Commission received a draft of proposed regulations relative to charging for water used from the main stem reservoir for industrial purposes. This item was tabled

that this item be placed on the agenda for the November meeting.

**STATUS OF WATER SUPPLY  
STUDY FOR DICKINSON AND  
ADJACENT RURAL AREAS  
(SWC Project No. 1674)**

In late July, 1977, a meeting was held with sponsors of S.B. 2548; it was determined at that meeting the importance of public participation and that a Citizens Advisory Committee should be formed. This group has been organized and presently consists of nine members; seven already have been selected. The membership of the Citizens Advisory group will be kept at a minimum and shall act as a liaison between the citizens and the State Water Commission. Those members selected to date are: a representative from each water management district of the counties of Mercer, Dunn and Stark; a representative from the City of Dickinson; a representative from the Slope Area Water Systems

Dave Sprynczynatyk distributed copies and discussed S.B. 2548, Southwest North Dakota Water Supplementation Study, and reviewed a draft Plan of Study. The Plan of Study is attached hereto as APPENDIX "B".

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Cooperative; a representative of the Badlands Environmental Association; and a representative of the United Plainsmen Association. There will be the selection of a citizen-at-large appointed by the Governor, and also a representative from the area south of Stark County.

Mr. Sprynczynatyk reviewed the timetable developed and stated that a final study draft should be available by October, 1978. This will allow the area residents to review the study findings prior to the 1979 Legislative Session.

Discussion then centered around the possibility of coordinating efforts to make use of data obtained by the Regional Environmental Assessment Program (REAP) in this study.

Governor Link recognized and thanked Mr. Leon Dubourt, Mayor of Walhalla, and Grant Trenbeath for their guidance in a very enlightening and informative tour of the area the previous day.

The Commission recessed at 12:00 noon, and the meeting was reconvened at 1:00 p.m.

CONTINUED DISCUSSION OF  
ACREAGE LIMITATIONS FOR  
IRRIGATION WATER PERMITS  
(SWC Project No. 1400)

Secretary Fahy stated that the Commission has heard testimony at previous meetings held in different areas of the state relative to restricting the amount of water issued under permits for irrigation purposes.

Governor Link noted acceptance of a letter from Commissioner Wilhelm wherein she offered a proposal for acreage limitation for consideration and discussion by the Commission. One paragraph of this proposal which was emphasized by use of capital case letters seemed to summarize Commissioner Wilhelm's proposal:

"On that basis, in addition to the formulas currently under consideration, I propose that this Commission consider either the flat figure of a 960-acre limitation per family farm or 480 acres for each the husband and the wife plus an additional 240 for each dependent, providing they all live and work on that farm. These figures would include both purchased and leased land."

Discussion centered around the Department of the Interior's recommendations on acreage limitations.

Comment by Commissioner Kramer suggested that the Commission consider addressing a recommendation to support the 160-acre concept and that it be recommended that each project be considered as a separate unit and go under a Class I Equivalency as far as the number of acres an individual can irrigate from a Bureau of Reclamation project.

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Secretary Fahy indicated that as State Engineer he has responded to requests from Senators Young and Burdick that the State of North Dakota favors the consideration of the Equivalency relationship in the adoption of the 160-acre limitation.

It was the consensus of the Commission members that the State Engineer be directed to forward similar correspondence to Mr. Cooper, an official of the Bureau of Reclamation, on behalf of the Commission favoring a Class I Equivalency.

Governor Link invited testimony from the audience relative to the acreage limitation discussion.

Leon Dubourt, Walhalla, an irrigator of potatoes, referred to the tour taken by the Commission, and indicated the Commission had an opportunity to view much of the tremendous investment needed for this industry including trucks, equipment, storage buildings, warehouses, etc. He stated that this specialty crop must have a minimum of a three-year rotation period for disease control. By limiting acreage, this would not allow for the adequate land needed for this rotation of specialty crops.

Virginia Lee Dunnigan, Walhalla, indicated that she ran the Missouri Basin Potato Association in Bismarck, and presented comments from her own experience. She reinforced Mr. Dubourt's statement of the importance of a three or four-year crop rotation in the production of potatoes. She discussed different kinds of marketing procedures for specialty crops, special equipment, a sufficient volume of crop to make the investment feasible, and she urged the Commission to very carefully consider specialty crops when considering acreage limitations.

CONSIDERATION OF WATER  
PERMIT REQUESTS  
(SWC Project No. 1400)

Secretary Fahy presented APPENDIX "C" to the Commission for their consideration, which represents the water permit agenda.

At the Commission's last meeting, Devils Lake city officials requested an appearance on water permit No. 2661, Darrie Peterson, Warwick (description of status on page 4 of APPENDIX "C"), therefore confirmation of the State Engineer's action was deferred. City officials have expressed concern that if irrigation takes place on this land there may be some nitrate infiltration into the aquifer which may degrade the municipal water supplies for the City of Devils Lake.

This matter was brought to the attention of the State Health Department, and they reported that their review indicates no problem.

To satisfy the City's concern, a letter was developed on September 12, 1977, and forwarded to the President of the City Commission in which the Commission indicated that they will develop and operate a monitoring program with input from Devils Lake officials. Four major functions

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of this program would consist of 1) install a system of observation wells from which water samples can be collected periodically for chemical analyses. It will probably consist of 2 to 5 wells placed at strategic locations and depths; 2) collect water samples periodically from the Devils Lake City wells for chemical analyses with particular attention to nitrates. The sampling interval will be determined in consultation with city officials to give representatives baseline values of various chemical constituents; 3) collect water samples periodically from the Peterson Irrigation well (if constructed) for chemical analyses with particular attention given to nitrates; and 4) all data collected will be reviewed and interpreted to detect measured or potential changes in water quality. Sampling frequencies and locations will be reviewed in the light of any water quality changes.

Mayor Dennis L. Riggin, and City Engineer, Jim Leander, distributed copies of correspondence from their office dated August 15, 1977, and copies of State Water Commission correspondence dated September 12, 1977. (Copies of this correspondence are filed with water permit No. 2661.) They briefly reviewed their concerns and urged the Commission to consider these concerns when the application is considered. They did indicate that the operation of the monitoring program would help to satisfy their concerns.

After discussion, it was moved by Commissioner Gray that a conditional water permit be granted to Darrie Peterson, Warwick, water permit No. 2661, to appropriate 202.5 acre-feet of water to irrigate 135.0 acres, with the condition that the State Water Commission will develop and operate the monitoring program as outlined in the correspondence from the SWC on September 12, 1977. The motion was seconded by Commissioner Kramer. All members voted aye; the motion carried.

Secretary Fahy discussed water permit No. 2891, North Valley Water Association, Inc. Their original intent was to divert water out of the ABM service line. The local people and the State Engineer have carried out their portions, but are awaiting for the Corps of Engineers to sign an agreement. This permit is still pending. North Valley Water Association has recently applied under water permit No. 2891 requesting diversion of 140.0 acre-feet from an aquifer. The State Engineer is recommending deferring action on the two applications at this time pending further investigations.

Secretary Fahy discussed water permit Nos. 800 and 916, Patterson Land Company, which have both been recommended to be denied because of non-availability of water. Communication was received from Lorin Duemeland, Manager of the Patterson Land Company, requesting that these permits be kept in a pending status.

The State Engineer indicated that it is not his desire to handle the applications in this manner, because it would mean establishing a priority date and a diversion point for which there is no water.

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Therefore, he recommended that both applications be denied.

In respect to water permit No. 2796, Edgewood Rentals, Inc., who have requested 35.0 acre-feet of water from ground-water sources, Mr. Jack Thompson, President, appeared before the Commission. He briefed the Commission on their plans and suggested the possibility of considering a more expeditious manner in the processing of applications for domestic purposes requiring smaller amounts of water.

Following discussion, it was moved by Commissioner Kramer, seconded by Commissioner Gray, and carried, to confirm the action of the State Engineer as presented in APPENDIX "C", and that the following be granted a conditional water permit, subject to conditions indicated on each respective permit:

No. 2662 - William J. MacDonald, Bismarck (granted a portion of the request being held in abeyance. This was approved by the State Engineer on August 25, 1977); No. 2265 - Russell Makeeff, Mercer (granted a portion of the request being held in abeyance. This was approved by the State Engineer on September 6, 1977); No. 2890 - All Seasons Water Users Association, Inc., Bottineau; No. 2685 - Rockeman-Foss Ranch, Sidney, Mont; No. 2865 - Edgar Hoesel, New Salem; No. 2776 - Adrian S. Mongeon, Rolette; No. 2661 - Darrie Peterson, Warwick; No. 2846 - Drees Farming Association, Grand Forks; No. 2570 - Vernon Brossart, Balta; No. 2306 - Leslie Nesvig, LaMoure (this was a request for a change in points of diversion); No. 2691 - Harry J. Turbiville, Marmarth; No. 2796 - Edgewood Rentals, Inc., Fargo; No. 2768 - Miller Gravel & Ready Mix, Inc., Cando; and No. 2778 - Harry W. Renken, Shields.

It was also moved by Commissioner Kramer, seconded by Commissioner Gray, and carried, that water permit Nos. 800 and 916, Patterson Land Company, be denied based on the non-availability of water. Water Permit No. 2725, City of Hankinson was also denied based on the fact that the point of diversion listed in this application will be added to Perfected Water Permit No. 735.

It was also moved by Commissioner Kramer, seconded by Commissioner Gray, and carried, that the following request be deferred at this time:

No. 2891 - North Valley Water Association, Inc., Cavalier. (SEE APPENDIX "C")

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It was suggested by Commissioner Just that when possible the name of the aquifer should appear on the water permit agenda.

DISCUSSION OF NORTHERN  
TIER PIPELINE SYSTEM  
(SWC Project No. 1373)

Secretary Fahy discussed a program developed by the Northern Tier Pipeline system relative to examining the environmental aspects of its pipeline project. The State Water Commission is being asked to participate in this examination in order to have the benefit of our expertise and knowledge in that area.

The State Engineer stated that because of our concern in the area, the State Water Commission will become involved in the program.

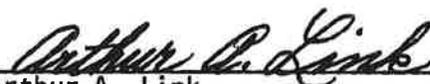
CONTINUED DISCUSSION OF  
GARRISON DIVERSION PROJECT  
(SWC Project No. 237)

In regard to a discussion held earlier today in which it was suggested that a member of the Commission be appointed to attend the Garrison Diversion Conservancy District's quarterly Board meetings, it was suggested by the Governor that, due to the importance of this subject, that the responsibility should probably be shared by two or three of the Commission members because of schedule conflicts.

Therefore, Governor Link appointed Commissioners Kramer, Gray and Lanz as the delegates to represent the Commission at the Garrison Diversion Conservancy District's quarterly Board meetings.

There being no further business to come before the Commission at this time, it was moved by Commissioner Just that the meeting be adjourned. The motion was seconded by Commissioner Kramer. All members voted aye; the motion carried.

Therefore, Governor Link appointed Commissioners Kramer, Gray and Lanz as the delegates to represent the Commission at the Garrison Diversion Conservancy District's quarterly Board meetings.

  
Arthur A. Link  
Governor-Chairman

ATTEST:

  
Vernon Fahy  
State Engineer and Secretary

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NORTH DAKOTA STATE WATER COMMISSION

REGISTER

ATTENDANCE AT State Water Commission

DATE Sept. 16, 1977 PLACE Wahalla, N.D.

PROJECT NO. \_\_\_\_\_

Your Name	Your Address	Who do you Represent? (Or Occupation)
James Engelhorn	Carrington	GOCO
Virginia Durrigan	Wahalla	Three "O" Sales
Pete Nelson	Wahalla	Banker
John H. Harger	Fargo	Edgewood Dental
Robert Lindbath	Rich, N.D.	Pembina River Basin Assoc.
Russ Dushvick	Munst, N.D.	N.D. Water users assoc.
Leo J. Kardos	Edenburg ND	Water Management Board
Eugene Kopf	Wahalla ND	Leo Lorenz Penning Co
Paul Cray	Wahalla	Attorney
Mary Ellen Thompson	Fargo	interested citizen
J. Oliver Johnson	Edenburg	County Commissioner Pembina Co
Mark Johnson	Bismarck	SWC
Donnie Ruggier	Devils Lake	Mayor
JAMES K LEANDER	DEVILS LAKE	CITY ENGINEER
DAVID SPYNGER	Bis	SWC
Leon Schubert	Wahalla	Banking - Mayor

## RELEASE OF EASEMENT

WHEREAS, Mr. Raymond J. Fischer, owner of the SW $\frac{1}{4}$  of Section 30, Township 132 North, Range 104 West, Bowman County, North Dakota, has requested that three easements granted to the State of North Dakota and County of Bowman for the construction and maintenance of a dam, and the right of access to said dam, be released. The location of this dam is 375 feet due north, thence 450 feet due east of the southwest corner of Section 30, Township 132 North, Range 104 West, Bowman County, State of North Dakota. The first of these easements was granted to the State of North Dakota for the purpose of construction and maintenance of said dam. This easement was dated March 30, 1935, and was recorded on April 1, 1935, at 3:00 p.m., in Book 9 of Miscellaneous, Page 423, at the office of the Register of Deeds, Bowman County, North Dakota.

LEGAL DESCRIPTION OF EASEMENT DATED MARCH 30, 1935:

"In consideration of benefits to be derived, grants the right and easement to inundate so much of the S $\frac{1}{2}$ NE $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$ , Section 30, Township 132 North, Range 104 West, Bowman County, North Dakota, as may be inundated from the construction of a dam northeast of the southwest corner of Section 30, Township 132 North, Range 104 West, and releases the United States, the State of North Dakota, its Political Subdivision from any claim for damages for any such inundation."

The second of these easements is a right-of-way easement granted to the State of North Dakota for the use and benefit of the State Game and Fish Department. This easement was dated November 10, 1953.

LEGAL DESCRIPTION OF EASEMENT DATED NOVEMBER 10, 1953,  
ENTITLED RIGHT-OF-WAY EASEMENT:

"Know all men by these presents, that I (we) (the undersigned), for a good and valuable consideration, do hereby grant unto the State of North Dakota for the use and benefit of the State Game and Fish Department, its successors or assigns and to the public the right to

enter upon the lands, impoundments, structures and waters of the undersigned situated in the County of Bowman and State of North Dakota and more particularly described as:

The Southwest Quarter (SW $\frac{1}{4}$ ) of Section 30, Township 132 North, Range 104 West Coyote Creek, Spring Lake, Wagner Dam, for the purpose of fishing and recreation.

In consideration of said easement, the State of North Dakota through the State Game and Fish Department does hereby agree to survey or cause to be surveyed the area wherein such empoundment, dam, structure, or lake exists and upon a determination that the proposed project is feasible will expend such money as may be agreed upon by and between the parties hereto and other interested departments, agencies or organizations for the erection, construction, repair, improvement or for the fish stocking of such impoundment, dam, structure or lake as the case may be and as above described.

The undersigned for considerations, above mentioned, does hereby now agree that the waters located on the above described land with suitable access thereto as may be agreed upon by the parties hereto together with a strip of land fifty feet wide at least half way around, adjoining and contiguous to said body of water may be used by the public for fishing, and recreation, provided however that no buildings or fences shall be erected on any part or portion of said lands without the approval of the land owner nor shall there be any concessions, stores, lunch rooms or the like established thereon without the consent of the land owner.

Lastly, in the event that a determination shall be made that the proposed project is not feasible for any reason whatsoever then this easement and the rights thereunder shall cease, be null, void and held for naught and such instrument shall be returned to the land owner."

The third of these easements was granted to the State of North Dakota and County of Bowman for the purpose of raising the height of said dam and increasing the reservoir capacity. This easement was dated August 31, 1954, and was recorded on September 2, 1954, at 11:10 o'clock a.m., in Book 17 of Miscellaneous, Page 333, at the office of the Register of Deeds, Bowman County, North Dakota.

LEGAL DESCRIPTION OF EASEMENT DATED AUGUST 31, 1954:

For and in consideration of the benefits to be derived by us, the undersigned owners of the SW $\frac{1}{4}$  of Section 30, Township 132 North, Range 104 West, Bowman County, North Dakota, by raising the height of the dam constructed on Coyote Creek in or about 1935, and located 375 feet north and 450 feet east of the southwest corner of said section 30, we do hereby grant to the State of North Dakota and Bowman County the right to raise the height or elevation of said dam two (2) feet so as to increase the reservoir capacity thereof. And we do hereby convey, release and dedicate to the State of North Dakota for

and on behalf of the public, and for the use and benefit thereof, the right and easement to inundate so much of said lands as the increased height of said dam may cause to be flooded; and we do hereby release the State of North Dakota, any agency or department thereof, Bowman County and any municipal corporation therein, and any and all persons engaged or concerned with the work of increasing the height of said dam, from all liability for damages to the lands of the undersigned which may result from increasing the height thereof.

WHEREAS, said dam and reservoir no longer provide a feasible project for the North Dakota Game and Fish Department for the purposes of fishing or recreation; and

WHEREAS, said dam and reservoir are no longer useful and as a result are no longer needed; and

WHEREAS, due to the above stated circumstances the easements granted to the State of North Dakota and the County of Bowman on the foregoing specified dates, are no longer of any value to the State of North Dakota.

NOW, THEREFORE, be it resolved that the State Water Commission of the State of North Dakota, together with the North Dakota State Game and Fish Department, and the County of Bowman, do hereby grant, release and surrender unto Mr. Raymond J. Fischer, all of its right and interest granted and dedicated to the State of North Dakota, and the County of Bowman, by virtue of those certain easements above described, and that the exclusive use and enjoyment of said property previously subject to said easement shall in all respects be returned to the current owner of said real property, Raymond J. Fischer.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:

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Arthur A. Link  
Governor-Chairman

SEAL

ATTEST:

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Vernon Fahy  
Secretary

NORTH DAKOTA STATE GAME AND FISH DEPARTMENT

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Russel Stuart, Commissioner

BOWMAN COUNTY WATER MANAGEMENT DISTRICT

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DICKINSON & RURAL WATER SUPPLY FEASIBILITY STUDY

PLAN OF STUDY

DRAFT

NORTH DAKOTA STATE WATER COMMISSION  
September, 1977

## DICKINSON WATER SUPPLY STUDY

### PLAN OF STUDY

#### INTRODUCTION

Present municipal and domestic water supplies in southwestern North Dakota are generally inadequate, with most farms, ranches and small communities obtaining their water from groundwater. These aquifers yield water of marginal quantities and usually poor quality. The water seldom meets the recommended U. S. Health Standard limits of 500 ppm of total dissolved solids and often exceeds 3,000 ppm of total dissolved solids.

The City of Dickinson has experienced water problems for several years. Until the late 1940's, poor quality ground water served the city. In 1952, Dickinson Dam was constructed on the Heart River. However, the city has grown substantially since that time; from 7,500 in 1950 to 12,500 in 1970. In 1961, with a population of around 10,000 extensive water rationing was necessary because of dry conditions. The city is currently considering raising Dickinson Dam, although this proposal will only meet 1985 level water demands.

With a 2025 projected population level of 32,000,<sup>1/</sup> a long term solution is needed. The proposed Versippi Dam is such a long-term solution, but several problems exist. A large portion of the reservoir area and watershed is leased by various coal concerns. The purchase price of only the coal rights in the inundated areas would be extremely costly. Upstream mining could also decrease future water quality. The 1975 estimated cost of Versippi Dam was \$10 million.<sup>1/</sup>

For these reasons, the 45th North Dakota Legislature authorized the State Water Commission to investigate the feasibility of diverting waters from Lake Sakakawea to the water short areas of southwestern North Dakota. This concept would involve a main pipeline from Lake Sakakawea to Dickinson with laterals to smaller communities and rural areas.

<sup>1/</sup> U. S. Bureau of Reclamation, 1975.

### STUDY OBJECTIVES

The study purpose as stated in Senate Bill 2548 is "... to develop a plan and estimate of costs for supplementation of the water resources of Dickinson and the area south and west of the Missouri River with water supplies from the Missouri River, and for purposes including, but not limited to: domestic, rural water districts, municipal, livestock, irrigation, light industrial, mining, recreational, fish and wildlife, and pollution abatement uses which will result in the best use of such waters and related land resources with primary emphasis on domestic, rural water district, and municipal uses."

### STUDY SCOPE

The main areas to be included are Stark, Dunn and Mercer Counties. Adjacent counties may also be investigated for their municipal and rural domestic water needs if time and funding permits.

Municipal and rural domestic water uses will be given priority consideration. Light industrial uses will be included as part of municipal water requirements.

Irrigation will not be analyzed because (1) the West River Study concluded that diversion for irrigation alone was not feasible without an industrial subsidy and (2) money's are not available for detailed soils analysis.

Recreational water use will be considered in situations where costs are obviously not prohibitive. Large fish and wildlife water uses, such as streamflow augmentation, will not be considered due to known high costs.

### RELATED REPORTS

Several related studies (listed below) have been completed in the past. The most closely related report was the West River Study (1975). One relative conclusion made in the West River Study was that "... diversion from Lake Sakakawea is feasible"... but that ... "diversion of water for irrigation alone is not feasible."

- \* West River Study
- \* Little Missouri Grasslands Study
- \* Northern Great Plains Resource Program
- \* Feasibility Report: Municipal and Industrial Water Supply - Dickinson
- \* Yellowstone Level B Study (On going)
- \* Regional EIS (On going)

In addition to these studies, authorization from Congress has been requested for a Rural and Municipal Water Supply Study in Western North Dakota. The U. S. Bureau of Reclamation would be the lead agency. If funds are granted for this study, close coordination between these study groups would be necessary.

#### GENERAL INFORMATION

##### CLIMATE

Climate of the study area is best described as semi-arid continental, which is defined as having four distinct seasons with normally abrupt changes in daily weather patterns. Winter temperatures are generally higher than the rest of the state due to influences of warm, dry "chinook" wind (from the Rocky Mountains). Annual mean precipitation in the study area ranges from 15 to 16 inches. Although annual precipitation is relatively low, nearly 75 percent occurs during the 120-130 day growing season.

##### GEOLOGY-TOPOGRAPHY

The surface materials in the study area range in age from the Pierre Formation of Late Cretaceous age (about 70 to 100 million years ago) to recent deposits along current drainage systems. Most of the area lies undisturbed by glacial action. This unglaciated district is characterized by relatively flat to gently sloping uplands with low hills, ridges and isolated buttes along some of the drainage

divides. The hills, ridges and buttes are capped by resistant rocks in the generally soft or poorly consolidated sediments. Resistant types are cemented sandstone, clinker or "scoria", limestone and psuedoquartzite. The glaciated district is similar topographically to the unglaciated district with a few modifications, the most important of which are the diversion meltwater channels.

General tilt to the east and north towards the Missouri River has caused the region including the study area to be popularly referred to as the "Missouri Slope".

#### MINERALS

The most prominent and economically important mineral resources in the study area are lignite coal, natural gas and petroleum. Other minerals present in workable quantities are sand and gravel, clay, volcanic ash, stone, salt, potash, molybdenun, leonardite and uranium.

#### ECONOMIC ACTIVITY-POPULATION

Primary business activity in the City of Dickinson centers around providing market outlets, goods and services for surrounding areas. Cattle ranching, farming and the oil industry are the principal activities within the trade area.

Steady development of resources and economic potential in the trade area has caused considerable growth in population. This growth has taken place even as North Dakota and its rural areas and small communities have been experiencing a decline in population. The estimated 1975 population for Dickinson was 12,400. Total population for the area south and west of the Missouri River was estimated to be 85,600 in 1975.

## STUDY ANALYSIS

### NEED SURVEY

One of the most important requirements of a rural domestic and municipal water supply study is a needs survey. This involves canvassing the area to determine where additional water supplies are needed and wanted.

Specific survey methods to be used in this study have not been determined but several possibilities exist. Door-to-door surveys in rural areas by local citizens generally yield the best results. Mailer and newspaper questionnaires could be used although the percentage returned is usually lower with this method.

Municipal surveys can be accomplished by contacting each city regarding its needs, if any.

### ALTERNATIVE SUPPLY SYSTEMS

Several supply alternatives will be analyzed. All proposals will include provisions for rural water use. Also, each alternative will be analyzed for front-end treatment costs (treatment near the Lake Sakakawea end of the pipeline) as compared to treatment at Dickinson with redistribution at this point.

The alternatives are as follows:

- 1) A pipeline from Lake Sakakawea to Dickinson. This alternative could include several routes, depending upon the diversion point at Lake Sakakawea.
- 2) A pipeline from the ANG water intake and pumping structure north of Beulah to Dickinson. This alternative would not require a separate intake structure at Lake Sakakawea although total pipeline length would be approximately the same as alternative 1. This alternative is dependent upon approval by ANG. Discussions of this alternative have begun with the company.
- 3) A pipeline from Natural Gas Pipeline Company's proposed gasification plant in Dunn County to Dickinson. Since public dissent has been expressed on this gasification plant and the State Water Commission has denied a water permit

for the plant, this alternative may not be investigated in as much detail as others. However, the proposed site would be one of the closest sources of water, and would not require a separate intake structure.

4) A pipeline from the Missouri River below Garrison Dam to Dickinson. This alternative would be the greatest in length and could follow several routes.

#### ECONOMIC CONSIDERATIONS

The study plan will include an estimate of total cost, operation and maintenance costs and rate schedule necessary to repay the costs. Investigations on the overall system feasibility will be made, including a willingness to pay analysis. Project financing will also be reviewed.

#### ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

Environmental impacts as well as social impacts will be reviewed. If time and money permits, total assessments of each will be made on the most feasible alternatives.

### PUBLIC PARTICIPATION

#### ADVISORY COMMITTEE

An informal local committee will be established with a maximum of 9 members. This committee will serve as an overview group to review the study progress, receive local input and provide information regarding the study objectives.

One of the committee members will be a citizen at large chosen by the Governor. The remaining members will be representatives of governmental and area interest groups. Members will serve on a voluntary basis during the duration of the study. A staff member of the State Water Commission will act as secretary in the administration of the committee. The nine members should appoint one member as chairman of the committee.

### PUBLIC INVOLVEMENT

Public involvement is necessary to achieve worthwhile study results. A public involvement program will be developed to obtain citizen input and to coordinate the desire of special interest groups, government agencies and the general public.

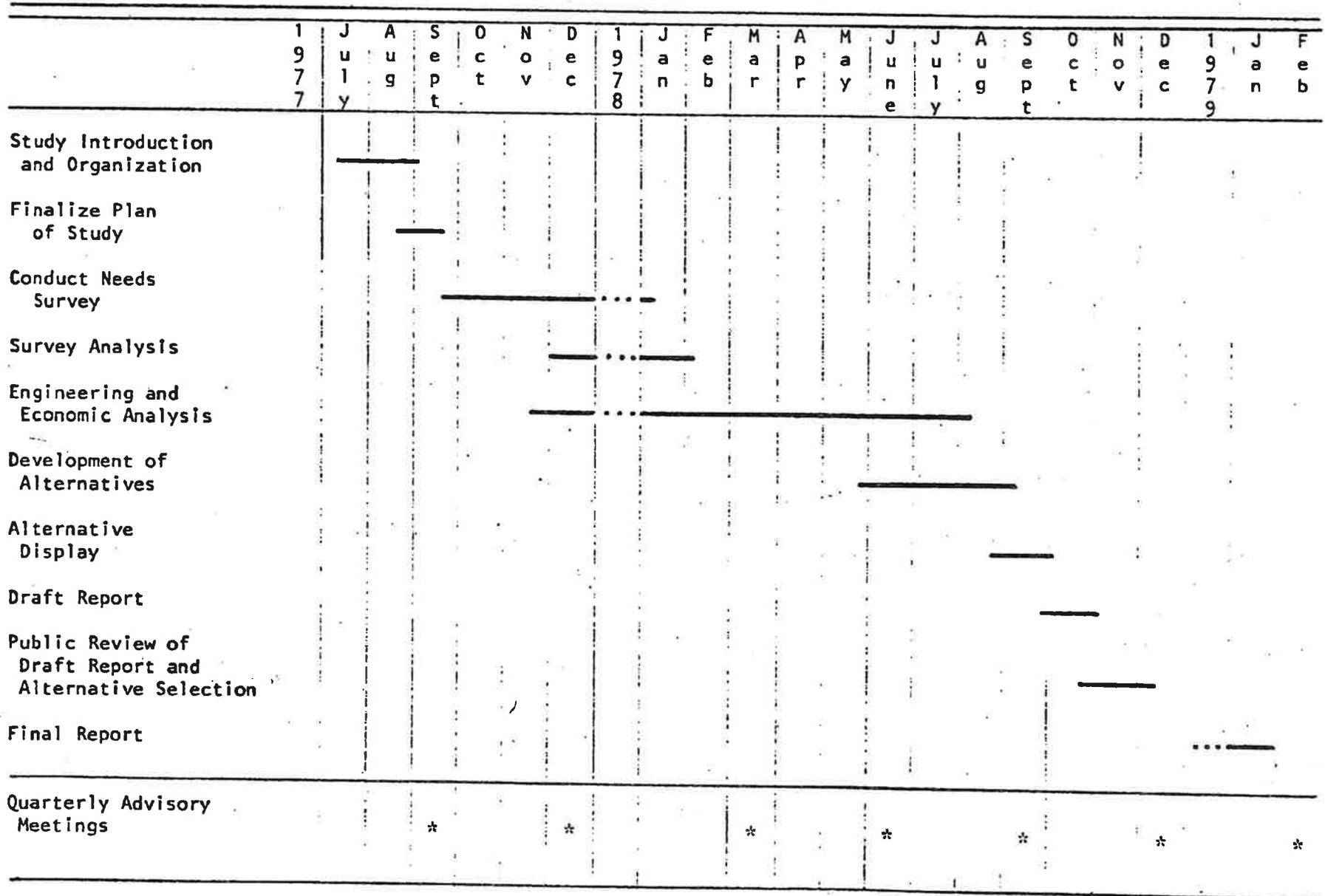
Initial public input will be gathered through the needs survey which will be conducted early in the study. Throughout the study process public input will be sought and encouraged at each of the regular meetings of the local advisory committee.

Following the development and analysis of various alternative supply measures, public review and input meetings will be essential. Public meetings will be held in the study area to provide the people in the benefitted area an opportunity to evaluate the relative value of each alternative.

### TIME SCHEDULE

It was requested that at least a final study draft be available by October, 1978. This would allow for area residents to review the study findings prior to the 1979 Legislative Session. For this reason, the following schedule is proposed:

### STUDY TIME SCHEDULE



WATER PERMIT AGENDA FOR SEPTEMBER 15 & 16, 1977 MEETING

\* INDICATES PRIOR PERMIT STATUS

NO.	NAME AND ADDRESS	SOURCE	PURPOSE	AMOUNTS REQUESTED	COMMENTS & RECOMMENDATIONS
2662	MacDonald, William J. - Bismarck (Burleigh County)  Priority: 12-21-76	Ground Water	Irrigation	442.0 acre-feet 294.0 acres	**  ** On February 11, 1977, the Commission granted approval to the applicant to appropriate 202.5 acre-feet of water to irrigate 135.0 acres. (The remainder of the request was held in abeyance.)  The application/request held in abeyance has been further reviewed and it is recommended that a portion of the amount held in abeyance be released to the applicant. It is recommended that the applicant be granted an additional 212.5 acre-feet of water to irrigate an additional 143.0 acres. (The remainder of the request shall continue to be held in abeyance)  Total amounts appropriated to date would then be 415.0 acre-feet to irrigate 278.0 acres.  (This request was approved by the State Engineer on August 25, 1977)
2891	North Valley Water Association, Inc. - Cavalier (Pembina County)  Priority: 7-15-77 Hearing: 9-12-77	Ground Water	Municipal (Rural Domestic)	140.0 acre-feet	It is recommended that action be deferred at this time pending further study.  * #1968 (Priority Date - 5- 8-75) Granted 200.0 acre-feet #2327 (Priority Date - 10-3-75) Granted 60.0 acre-feet

NO.	NAME AND ADDRESS	SOURCE	PURPOSE	AMOUNTS REQUESTED	COMMENTS & RECOMMENDATIONS
2265	Makeeff, Russell - Mercer (McLean County)	Ground Water	Irrigation	2375.1 acre-feet 1583.4 acres	**  ** On September 29, 1975, the Commission granted approval to the applicant to appropriate 200.0 acre-feet of water to irrigate 133.0 acres. (The remainder of the request was held in abeyance.)  The application/request held in abeyance has been further reviewed and it is recommended that a portion of the amount held in abeyance be released to the applicant. It is recommended that the applicant be granted an additional 114.0 acre-feet of water to irrigate an additional 77.0 acres. (The remainder of the request shall continue to be held in abeyance)  Total amounts appropriated to date would then be 314.0 acre-feet of water to irrigate 210.0 acres.  (This request was approved by the State Engineer on September 6, 1977.)
2890	All Seasons Water Users Association, Inc. - Bottineau (Bottineau County)	Ground Water	Municipal - (Rural Domestic)	65.0 acre-feet	65.0 acre-feet
	Priority: 7- 7-77 Hearing: 8-15-77 Deferred: 8-16-77	* #2491 (Priority Date: 6-10-76) - Granted 27.0 acre-feet #2492 (Priority Date: 6-10-76) - Granted 17.0 acre-feet #2493 (Priority Date: 6-10-76) - Granted 60.0 acre-feet			
2685	Rockeman-Foss Ranch - Sidney, Mont. (McKenzie County)	Little Missouri River, trib. to Missouri River	Irrigation	130.0 acre-feet 94.0 acres	94.0 acre-feet 94.0 acres
	Priority: 1-13-77 Hearing: 3-28-77 Deferred: 4-15-77	* NO PRIOR PERMITS			

NO.	NAME AND ADDRESS	SOURCE	PURPOSE	AMOUNTS REQUESTED	COMMENTS & RECOMMENDATIONS
800	Patterson Land Company - Bismarck (Burleigh County)  Priority: 5-22-59 Hearing: 7- 6-59	Apple Creek, trib. to Missouri River	Irrigation	253.8 acre-feet 126.9 acres	It is recommended that this request be denied based on the non-availability of water.
916	Patterson Land Company - Bismarck (Burleigh County)  Priority: 7-11-61 Hearing: 8- 7-61	Horseshoe Lake	Irrigation	135.0 acre-feet 135.0 acres	It is recommended that this request be denied based on the non-availability of water.
2865	Hoesel, Edgar - New Salem (Morton County)  Priority: 5-23-77 Hearing: 7-18-77 Deferred: 8-16-77	Unnamed Tributary, trib. to Beaver Creek and Heart River  * NO PRIOR PERMITS	Irrigation- Waterspreading	27.5 acre-feet 27.5 acres	27.5 acre-feet 27.5 acres
2776	Mongeon, Adrian S. - Rolette (Rolette County)  Priority: 3-14-77 Hearing: 5-31-77 Deferred: 7- 8-77	Ground Water	Irrigation	640.0 acre-feet 464.89 acres	473.0 acre-feet 315.0 acres  * NO PRIOR PERMITS

NO.	NAME AND ADDRESS	SOURCE	PURPOSE	AMOUNTS REQUESTED	COMMENTS & RECOMMENDATIONS
2661	Peterson, Darrie - Warwick (Benson County)  Priority: 12-20-76 Hearing: 2-14-77 Deferred: 3-24-77	Ground Water   * NO PRIOR PERMITS	Irrigation	315.0 acre-feet 157.6 acres	202.5 acre-feet 135.0 acres  (This permit was granted approval by the State Water Commission on April 15, 1977, but the State Engineer suggested that more study and investigations be made on the request, therefore, the permit was not forwarded to the applicant. Additional information was obtained and it was recommended that the State Water Commission reaffirm its approval action of April 15, 1977.  At the Commission's August 16, 1977 meeting, city officials from Devils Lake requested an appearance on this application, and requested that action be deferred. The Commission deferred action at this meeting.  It is recommended that the State Water Commission reaffirm its approval action of April 15, 1977 at the September 16, 1977 meeting.
2846	Drees Farming Association - Grand Forks (Grand Forks Co.)  Priority: 2- 8-77 Hearing: 7- 5-77 Deferred: 7- 8-77	Ground Water   * NO PRIOR PERMITS	Irrigation	270.0 acre-feet 142.0 acres	202.5 acre-feet 135.0 acres

NO.	NAME AND ADDRESS	SOURCE	PURPOSE	AMOUNTS REQUESTED	COMMENTS & RECOMMENDATIONS
2570	Brossart, Vernon - Balta (Pierce County)  Priority: 5- 5-77 Hearing: 6- 6-77 Deferred: 7- 8-77	Ground Water	Irrigation	117.0 acre-feet 78.0 acres	117.0 acre-feet 78.0 acres
		* NO PRIOR PERMITS			
2306	Nesvig, Leslie - LaMoure (LaMoure County)  Hearing on Amendment: 8- 1-77 Deferred Amended Request: 8-16-77	Ground Water	Irrigation	This is a request for an amendment to conditional water permit.	It is recommended that the change in points of diversion be granted as requested, and an additional 142.6 acre- feet of water to irrigate an additional 106 acres be granted.
2691	Turbiville, Harry J.- Marmarth (Bowman County)  Priority: 1-19-77 Hearing: 3-28-77 Deferred: 4-15-77	Little Missouri River, trib. to Missouri River	Irrigation	640.0 acre-feet 330.0 acres	330.0 acre-feet 330.0 acres
		* # 587 (Priority Date: 11-12-53) #1246 (Priority Date: 10-16-64) #1672 (Priority Date: 10-20-69)		Granted 160.0 acres Granted 204.5 acres Granted 64.4 acres	
2796	Edgewood Rentals, Inc.- Fargo (Cass County)  Priority: 3-23-77 Hearing: 7-19-77 Deferred: 8-16-77	Ground Water	Municipal- (Rural Domestic)	35.0 acre-feet	35.0 acre-feet
		* NO PRIOR PERMITS			

NO.	NAME AND ADDRESS	SOURCE	PURPOSE	AMOUNTS REQUESTED	COMMENTS & RECOMMENDATIONS
2768	Miller Gravel & Ready Mix, Inc. - Cando (Towner County)  Priority: 3- 3-77 Hearing: 5-31-77 Deferred: 7- 8-77	Ground Water	Industrial	440.0 acre-feet	30.0 acre-feet
		* NO PRIOR PERMITS			
2778	Renken, Harry W. - Shields (Grant County)  Priority: 11- 8-76 Hearing: 6- 6-77 Deferred: 7- 8-77	Ground Water	Irrigation	130.0 acre-feet 65.0 acres	130.0 acre-feet 65.0 acres
		* NO PRIOR PERMITS			
2725	Hankinson, City of - Hankinson (Richland County)  Priority: 5-10-77 Hearing: 6- 1-77 Deferred: 7- 8-77	Ground Water	Municipal	285.0 acre-feet	It is recommended that this request be denied, based on the fact that the point of diversion listed in this application will be added to Perfected Water Permit No. 735. No additional acre-feet will be granted.
		* #735 (Priority Date: 6-25-57) Granted 285.0 acre-feet			