

NORTH DAKOTA STATE WATER COMMISSION

REGISTER

ATTENDANCE AT State Water Commission Meeting

DATE May 27, 1981 PLACE Bismarck, N. Dak.

PROJECT NO. _____

Your Name	Your Address	Who do you Represent? (Or Occupation)
LARRY L. Knackenberg	Bismarck	Game & Fish Dept.
STAN Zschomler	BISMARCK N.D.	Fish & Wildlife Service
Kemper Recklin	Bismarck	SWC
Anda Wuepfenning	Bismarck N.D.	SWC
Leroy Klapprott	Bismarck	SWC
DAVID A. Spryuczynski	Bismarck	SWC
Cary Backstrand	Bismarck	SWC
Sue Nicola	Bismarck	SWC
Larry Knudsen		SWC
Michael Kasir	Bismarck	SWC
Jerry Peterson	"	SWC
Jim Eastgate	"	Burleigh County WMD
Doug Hyman	"	Donovan's office
Russ Slushinske	Devils Lake	N.D. Fish & Wildlife Districts Assn
LAURIE McPHERSON	MINOT	N.D. WATER USERS

MINUTES

North Dakota State Water Commission
Meeting Held In
Bismarck, North Dakota

May 27, 1981

The North Dakota State Water Commission held an orientation meeting on May 27, 1981, in the Vocational Education Conference Room of the State Office Building, Bismarck, North Dakota. Governor-Chairman, Allen I. Olson, called the meeting to order at 9:35 a.m., and requested Secretary Vernon Fahy to present the agenda.

MEMBERS PRESENT:

Allen I. Olson, Governor-Chairman
Kent Jones, Commissioner, Department of Agriculture
Alvin Kramer, Member from Minot
Florenz Bjornson, Member from West Fargo
Guy Larson, Member from Bismarck
Henry Schank, Member from Dickinson
Garvin Jacobson, Member from Alexander
Vernon Fahy, State Engineer and Secretary, North Dakota
State Water Commission, Bismarck

The 1981 Legislature approved increasing the membership of the State Water Commission from five to seven appointed members. The Commissioners whose terms begin July 1, 1981, and who were present at the orientation meeting are:

Ray Hutton, Member from Oslo, Minnesota
Bernie Vculek, Member from Crete

OTHERS PRESENT:

State Water Commission Staff Members
Approximately 10 persons interested in agenda items

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

The proceedings of the meeting were recorded to assist in compilation of the minutes.

**CONSIDERATION OF MINUTES
OF DECEMBER 2, 1980 MEETING -
APPROVED**

Secretary Fahy reviewed the minutes of the December 2, 1980 meeting held in Bismarck, North Dakota. Since this meeting was under a different Commission

as is presently constituted, Commissioner Kramer who is the only hold-over member, indicated that the minutes do basically reflect the proceedings of that meeting. There were no corrections or additions to the minutes.

It was moved by Commissioner Kramer, seconded by Governor Olson, and unanimously carried, that the minutes of the December 2, 1980 meeting be approved as presented.

**COMMENTS BY
GOVERNOR ALLEN OLSON**

Governor Olson welcomed and introduced the new Commission members. In his opening comments, the Governor said

that the "State Water Commission shares a commitment to the beneficial use of North Dakota's water resources during its stewardship on this Commission. The water should be used, but not mined, and the primary responsibility of this Commission should be aimed towards development of the water resources of the State for the people of North Dakota. The State Engineer has the responsibility of regulating this resource."

Governor Olson appointed Commissioner of Agriculture, Kent Jones, to act as temporary Vice Chairman during his absence in this meeting.

Governor Olson indicated that he has appointed Gary Helgeson, natural resources liaison, to participate in Commission deliberations during his absence.

**COMMENTS BY STATE ENGINEER
AND ORGANIZATION OF STATE
WATER COMMISSION STAFF**

Secretary Fahy introduced State Water Commission staff members, and the following federal, state and private officials with water-related interests:

Homer Englehorn, Garrison Diversion Conservancy District; Russ Dushinske, Secretary of North Dakota Water Management Districts Association; Jim Eastgate, Burleigh County Water Management District; Laurie McMerty, North Dakota Water Users Association; Larry Kruckenberg, State Game and Fish Department; and Stan Zschomler, Fish and Wildlife Service.

Secretary Fahy briefly discussed the role of the State Engineer and the State Water Commission, as is outlined in APPENDIX "A". He explained the importance of several regional and national organizations in the development of the state's water resources.

Organization of the State Water Commission staff includes five divisions: Administrative, Legal, Planning, Hydrology and Engineering. The orientation meeting included a detailed presentation by each of the five division directors:

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LEGAL DIVISION: Director of the Legal Division, Mike Dwyer, explained the role and authority of the State Water Commission, and the role and authority of the State Engineer; activities of the Legal Division including litigation; the Southwest Pipeline Project; and a water permit filed by Basin Electric Power Cooperative. Details of Mr. Dwyer's presentation are included in APPENDIX "A", attached hereto.

ADMINISTRATIVE DIVISION: Director of the Administrative Division, Matt Emerson, explained, with handouts, the fiscal and biennial budget operations of the agency. Mr. Emerson said that the Administrative Division is responsible for the agency's accounts, records, and support services (clerical) to other divisions.

The Commission recessed their meeting at 11:45 a.m.; reconvened at 1:30 p.m. The Division Directors reports were continued.

PLANNING DIVISION: Director of Planning, Gene Krenz, and staff members, discussed the state water and related land resources planning process being undertaken in the Planning Division, indicating that a Management Plan would be available for presentation to the 48th Legislative Session. Mr. Krenz said that the Water Commission will serve as the program managers for this Plan, and he stressed the importance of strong citizen input and cooperation of other state agencies during the process.

Sue Nicola, Public Information Specialist, stated that 150 citizens representing all areas of the state have been selected to serve on seventeen Citizen Advisory Boards. A movie entitled "Water, North Dakota's Liquid Treasure"; electronic water management simulator to impress the need for wise water management; brochures, surveys and newspaper supplements throughout the planning process; and public speaking are some of the tools which will be used by the Planning Division to present the Plan to the public to encourage a strong citizen input.

Mr. Krenz stated that the primary purpose of the state's water planning process is to determine what this state's long-term water needs are.

ENGINEERING DIVISION: Director of Engineering, Dave Sprynczynatyk, indicated there are three separate sections within the engineering division: 1) regulatory; 2) hydrology and investigations; and 3) design and construction. The regulatory section within the Engineering Division includes surface water management permits required by statute such as drainage, diking and dam permits. He then explained the processing of these permits. Other functions of the regulatory section include the review of plans for water management activities such as stream channel modifications and

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pipeline crossings of streams; and reviewing water management plans for mining energy plants. Floodplain management is also a very important function of this section.

The hydrology and investigations section performs preliminary engineering studies for water management districts as well as other local entities. Generally these studies are done for a specific project, or to develop alternative solutions for problems. (See APPENDIX "B")

The design and construction section, which includes only two design engineers, develops final plans for projects at the request of local project sponsors. Because of the size of the section, only a limited amount of work can be done by this section. The section does include a construction crew which also can serve as project inspectors. (See APPENDICES "C" AND "D")

Mr. Sprynczynatyk explained the background which led to passage of SB-2338 in the 47th Legislative Session appropriating \$983,000 to the State Water Commission to contract for preliminary designs for a water supply facility for supplementation of the water resources of Dickinson and the area of North Dakota south and west of the Missouri River. The delivery of water would be from Lake Sakakawea, for multiple purposes, including domestic, rural water district, and municipal uses. The legislation, SB-2338, further directed that the plan shall utilize a pipeline delivery system. The preliminary design must be submitted to the Legislative Council on or before October 1, 1982.

The study proposal is made up of three components: preliminary design studies, financial studies and legal studies. Mr. Sprynczynatyk said that invitations have been accepted for the preliminary design component of the project and has been narrowed to six firms. A selection committee has been created to assist in the screening and selection of the engineering consultant. The six finalists will be required to submit a detailed study proposal by June 3, 1981, and interviews are scheduled with the six final firms on June 22 and 23, 1981.

Mr. Sprynczynatyk reviewed key dates which will involve the State Water Commission in this study (APPENDIX "E"). One of the most important dates is October 15, 1981, by which the State Water Commission will be required to select the recommended alternative for further study. Secretary Fahy indicated that it would be advantageous for the Commission to consider scheduling its meetings on or immediately following these dates.

HYDROLOGY DIVISION:

Director of Hydrology, Milton Lindvig, stated that the major responsibilities of the Hydrology Division include the hydrologic investigations required to identify and quantify the water resources of the state and the many faceted processes of administering water permits. Hydrologic investigations are

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separated into county ground-water studies, individual aquifer investigations, and basic data collections. Principal components of the water permitting administration include the processing of applications, developing recommendations for those applications, field inspections of completed facilities, processing perfected water permits and cancellation of abandoned and undeveloped permits.

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

Gary Helgeson, Resource Liaison Officer for the Governor, reviewed the status of the Garrison Diversion Project and explained in some detail the legal and administrative complications which are

delaying its progress. He discussed briefly the changing, or apparently changing, attitudes in the Department of the Interior as a result of recent presidential appointments and indicated that the new administration may be more receptive to the water development needs of the western states.

**CONSIDERATION OF REQUESTS
FOR STATE WATER COMMISSION
COST PARTICIPATION**

Secretary Fahy presented the following requests for State Water Commission cost participation:

**REQUEST FROM RUSH RIVER WMD
FOR COST PARTICIPATION IN
AMENIA DROP STRUCTURE
(SWC Project No. 1063)**

A request has been received from the Rush River Water Management District in Cass County for cost participation in the construction of a drop structure to be constructed at the intersection of

the Rush River and an Amenia Township road ditch in Amenia Township.

Total costs of the project are approximately \$60,000 of which 75 percent, or \$45,000, will be funded by the Lake Agassiz RC&D. The remaining local costs would be funded by the Rush River Water Management District and the Amenia Township Board of Supervisors. The Rush River Water Management District's request is for 40 percent participation of the local costs, or approximately \$6,000.

Secretary Fahy indicated that the preliminary plans have been reviewed by his staff and are acceptable; therefore, it was the recommendation of the State Engineer that the State Water Commission participate in the project and that the participation be limited to 40 percent of the local costs, not to exceed \$7,000. He noted that \$7,000 is greater than 40 percent but allows for the possibility of overruns and/or inflation in construction prices between now and next spring when the contract will be let.

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REQUEST FROM RICHLAND COUNTY
WMD FOR COST PARTICIPATION IN
FLOOD HAZARD ANALYSIS FOR
ANTELOPE CREEK
(SWC Project No. 1577)

A request has been received from the Richland County Water Management District for financial participation in a flood hazard analysis for the Antelope Creek. The analysis will provide base flood information along Antelope Creek and

the information will in turn be used by local units of government to implement effective floodplain management. Implementation of floodplain management regulations will result in a reduction of future flood damages along the creek.

Total cost of the project, which will be done by the Soil Conservation Service, will be \$65,800. Local costs will be \$13,000.

It was the recommendation of the State Engineer that the State Water Commission contribute 40 percent of the local costs, not to exceed \$5,200, towards this project.

REQUEST FROM TRAILL
COUNTY WMD FOR COST
PARTICIPATION IN
SNAGGING AND CLEARING
OF GOOSE RIVER FROM
HILLSBORO TO RED RIVER
(SWC Project No. 1667)

A request has been received from the Traill County Water Management District for cost participation in the snagging and clearing of the Goose River from Hillsboro to the Red River to help alleviate local flooding.

The estimated total cost of this project is \$146,000. Policy established in the state has allowed for the state to provide 25 percent of the cost of eligible construction items for snagging and clearing.

It was recommended by the State Engineer that the State Water Commission participate in this request granting 25 percent of the estimated cost for this project, not to exceed \$36,500.

REQUEST FROM NELSON COUNTY
WMD FOR COST PARTICIPATION
IN REPAIR OF SARNIA DAM
(SWC Project No. 291)

A request has been received from the Nelson County Water Management District for cost participation in the repair of the Sarnia Dam. The dam was built by the WPA in 1936 as a recreation project. The spillway has experienced damages several times during high flood flows and in 1978 the spillway of the dam was completely washed out and has remained in a state of disrepair since that time.

In May, 1979, the State Water Commission prepared a preliminary engineering report for the Nelson County Water Management District investigating the repair of the dam and recommended that the Sarnia Dam spillway be reconstructed to act as a dry dam for flood control. The reason to reconstruct the dam as a flood control project is to offset any

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impact of drainage that may have occurred in the upper portion of the basin of the Forest River and also to provide flood damage reduction downstream of the dam.

The cost of the reconstruction of the dam is approximately \$60,000. The Nelson County WMD has requested 45 percent cost participation by the State Water Commission in this project. The remaining 55 percent of the project cost would be shared by the Nelson County Water Management Board, the Red River Joint Water Management Board, and the Walsh County Water Management Board. If this project is constructed, it will be the first project that the Red River Joint Water Management Board will have participated in.

It was recommended by the State Engineer that the State Water Commission participate in 45 percent of the project cost, not to exceed \$27,000.

**REQUEST FROM SIOUX COUNTY
WMD FOR COST PARTICIPATION
IN RECONSTRUCTION OF WEST
DAM NEAR SELFRIDGE
(SWC Project No. 1305)**

A request has been received from the Sioux County Water Management District for cost participation in the reconstruction of the West Dam near Selfridge, North Dakota. This dam was built by the WPA in the 1930's and provides

a 13-acre recreation lake. The spillway of the dam is now in critical need of repair.

The total cost of the repair of the dam is \$32,000. The Soil Conservation Service will contribute 75 percent of the cost. The local cost share will be approximately \$8,000. The request from the county is that the State Water Commission contribute \$2,000 towards this project.

This dam does provide a water-based recreation project in an area where projects of this type are almost nonexistent, therefore, it was the recommendation of the State Engineer that the State Water Commission honor this request by providing \$2,000 towards this project.

It was moved by Commissioner Kramer, seconded by Commissioner Jacobson, and unanimously carried, that the State Water Commission contribute the following funds for the projects described previously, subject to the availability of funds:

- 1) Amenia Drop Structure in Cass County - \$7,000
- 2) Antelope Creek Flood Hazard Analysis in Richland County - 5,200

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- | | |
|--|------------|
| 3) Goose River Snagging and
Clearing in Traill County | - \$36,500 |
| 4) Repair of Sarnia Dam in
Nelson County | - 27,000 |
| 5) West Dam Reconstruction in
Sioux County | - 2,000 |

CONSIDERATION OF DATE AND PLACE
OF NEXT STATE WATER COMMISSION
MEETING

It was the consensus of the State Water
Commission that their next meeting be
scheduled in conjunction with those
dates provided for the Southwest Pipeline

Project Study, and the final selection of the dates be left to the discretion
of the Governor and the State Engineer.

It was moved by Commissioner Bjornson,
seconded by Commissioner Schank, and
unanimously carried, that the meeting
adjourn at 4:30 p.m.



Allen I. Olson
Governor-Chairman

ATTEST:



Vernon Fahy
State Engineer and Secretary

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I. ROLE AND AUTHORITY OF THE STATE WATER COMMISSION

The State Water Commission was created and established in 1937 as the State Water Conservation Commission, for the primary purpose of providing leadership and assistance "for the construction, operation and maintenance of a system of works for the conservation, development, storage, distribution and utilization of water, and for the acquisition and disposition of property necessary therefor." (S.L. 1937, ch 255)

The exceedingly broad and comprehensive powers and duties delegated to the State Water Conservation Commission to carry out its functions seem to clearly indicate that the Legislature intended the new agency to become involved in a variety of water management and water development activities as the need arose. At the time the State Water Commission was created, it is apparent that irrigation to prevent future crop failures was the primary need envisioned by the Legislative Assembly. The last section of the 1937 legislation was an emergency provision which provided:

§35. EMERGENCY.--Because of the inability of thousands of citizens throughout the State to find employment and to support themselves and their families in the present depression, and because of serious crop failures, and health hazards, resulting from unprecedented drought conditions, it is necessary to proceed immediately with the construction of the works authorized by this Act in order to create employment, assist the growing crops and prevent irreparable injury to the people of the State. An emergency is hereby declared to exist, and this Act shall be in full force and effect from and after its passage and approval.

Approved March 6, 1937.

While the pressing need calling for the creation of the State Water Commission may have been water supply, the Legislature provided the new agency with sufficiently broad authority to participate in other projects and activities as well, including flood control, drainage, conservation of water, streamflow augmentation, among others. Section 61-02-14 of the North Dakota Century Code, which contains the primary authority of the State Water Commission, is reproduced below:

61-02-14. Powers and duties of the commission. The commission shall have full and complete power, authority, and general jurisdiction:

1. To investigate, plan, regulate, undertake, construct, establish, maintain, control, operate, and supervise all works, dams, and projects, public and private, which in its judgment may be necessary or advisable:
 - a. To control the low-water flow of streams in the state.

- b. To impound water for the improvement of municipal, industrial, and rural water supplies.
- c. To control and regulate flood flow in the streams of the state to minimize the damage of such flood waters.
- d. To conserve and develop the waters within the natural watershed areas of the state and, subject to vested rights, to divert the waters within a watershed area to another watershed area and the waters of any river, lake or stream into another river, lake or stream.
- e. To improve the channels of the streams for more efficient transportation of the available water in the streams.
- f. To provide sufficient water flow for the abatement of stream pollution.
- g. To develop, restore and stabilize the waters of the state for domestic, agricultural and municipal needs, irrigation, flood control, recreation, and wildlife conservation, by the construction and maintenance of dams, reservoirs and diversion canals.
- h. To promote the maintenance of existing drainage channels in agricultural lands and to construct any needed channels.
- i. To provide more satisfactory subsurface water supplies for the municipalities of the state.
- j. To finance the construction, establishment, operation, and maintenance of public and private works, dams, and irrigation projects, which in its judgment may be necessary and advisable.
- k. To provide for the storage, development, diversion, delivery, and distribution of water for the irrigation of agricultural land and supply water for municipal and industrial purposes.
- l. To provide for the drainage of lands injured by or susceptible of injury from excessive rainfall or from the utilization of irrigation water, and subject to the limitations prescribed by law, to aid and cooperate with the United States and any department, agency, or officer thereof, and with any county, township, drainage district or irrigation district of this state, or of other states, in the construction or improvement of such drains.
- m. To provide water for stock.
- n. To provide water for the generation of electric power and for mining and manufacturing purposes.
2. To define, declare, and establish rules and regulations:
 - a. For the sale of waters and water rights to individuals, associations, corporations, municipalities, and other political subdivisions of the state, and for the delivery of water to users.
 - b. For the full and complete supervision, regulation, and control of the water supplies within the state.
 - c. Repealed by S.L. 1975, ch. 575, § 2.
 - d. Governing and providing for financing by local participants to the maximum extent deemed practical and equitable in any water development project in which the state participates in cooperation with the United States or with political subdivisions or local entities.
3. To exercise full power and control of the construction, operation, and maintenance of works and the collection of rates, charges, and revenues realized therefrom.

4. To sell, lease, and otherwise distribute all waters which may be developed, impounded, and diverted by the commission under the provisions of this chapter, for the purpose of irrigation, the development of power, and the watering of livestock, and for any other private or public use.
5. To exercise all express and implied rights, power and authority, that may be necessary, and to do, perform, and carry out all of the expressed purposes of this chapter and all of the purposes reasonably implied incidentally thereto or lawfully connected therewith.
6. To acquire, own and develop lands for irrigation and water conservation and to acquire, own and develop dam sites and reservoir sites and to acquire easements and rights of way for diversion and distributing systems.
7. To cooperate with the United States and any department, agency or officer thereof in the planning, establishment, operation, and maintenance of dams, reservoirs, diversion and distributing systems, for the utilization of the waters of the state for domestic, municipal and industrial needs, irrigation, flood control, water conservation, generation of electric power and for mining, agricultural and manufacturing purposes, and in this connection the state water conservation commission is hereby authorized, within the limitations prescribed by law, to acquire, convey, contribute or grant to the United States, moneys, real and personal property, including land or easements for dams and reservoir sites and rights of way and easements for diversion and distribution systems or participate in the cost of any project.

Source: N.D.C.C.; S. L. 1963, ch. 417, § 7;
1965, ch. 446, § 2; 1975, ch. 575, § 2

In reviewing the history of the creation of the State Water Commission, it seems clear that the Commission was not intended to become a regulatory agency, but rather was created as a "water authority". The role of the State Water Commission as a "water authority" includes the following function and authorities:

A. Establish Policy for Water Development.

It goes without saying that if a "water authority" is created to provide for development of water resources in North Dakota, it must establish a policy for such development. For example, is irrigation development to be given a high priority? The State Water Commission is in an excellent position at the present time, as the study management board for the state water plan, to establish policy for water development through the development of the state water plan, which is currently underway. Further information on the State Water Commission's leading role in the development of the state water plan will be provided by the planning division.

- B. Authorize Expenditures from Contract Fund.
- C. Utilize Interim (Construction Period) Note & Revenue Bond Authorities to Assist in the Financing of Various Water Projects.

These two functions will be discussed together, due to close relation to each other. Generally, the State Water Commission has two authorities to provide financial assistance for water projects in North Dakota.

1. Contract Fund. This is North Dakota's "public works" program for water related activities and projects. The state general fund is the source for the contract fund. Each biennium since the contract fund was created, the Legislative Assembly has appropriated money to the State Water Commission contract fund to be "paid out or disbursed in such manner as may be determined by the Commission." (§61-02-64.1, NDCC) In the past, this money has been expended by the Commission for cost-sharing for water-related projects, for groundwater studies, and for various engineering and hydrology studies. Much of the cost-sharing by the State Water Commission from the contract fund for projects and studies is with local water resource districts.
2. Interim Notes & Revenue Bonds. The State Water Commission also has the authority to sell interim notes (for construction period financing) and revenue bonds to provide financing for water-related projects. While the notes and bonds must be repaid, they are "tax-exempt", and thus the financing available through these authorities is especially attractive. The objective of this type of financing, of course, is to provide cheaper financing for water projects to make them more feasible.

A review of the history of the financing authorities of the State Water Commission may be helpful in understanding the financing role of the State Water Commission. When the State Water Commission was first created in 1937 (S.L. 1937, Ch.255) the Legislature directed the Commission to establish three funds. Section 25 of the 1937 legislation provided that:

§25. FUNDS.—The Commission shall create three funds to be known as the "administration Fund", the "Construction Fund", and as the "Revenue Bond Payment Fund".

Section 26 of the 1937 legislation established the "construction fund" as follows:

§26. CONSTRUCTION FUND.—The proceeds of the bonds of each series issued under the provisions of this Act shall be placed to the credit of the Construction Fund, which fund shall at all times be kept segregated and set apart from all other funds. There shall be also credited to the Construction Fund all accrued interest upon the bonds and the interest received upon the deposits of moneys in such fund and moneys received by way of grant from the United States or from any other source for the construction of the works. The moneys in the Construction Fund shall be paid out or disbursed in such manner as may be determined by the Commission, subject to

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the provisions of this Act, to pay the costs of the work as hereinabove defined. Any surplus which may remain in the Construction Fund, after providing for the payment of the cost of the works, shall be added to and become a part of the Revenue Bond Payment Fund hereinafter provided for. (S.L. 1937, Ch. 255)

For the first biennium of its existence, the State Water Commission received an appropriation of \$112,500. The appropriation was part of the 1937 legislation creating the State Water Commission, and was placed into the "Administration Fund":

§31. APPROPRIATION.—There is hereby created a special fund to be known as "Administration Fund", into which there is hereby appropriated out of any money in the Treasury of the State, not otherwise appropriated, the sum of One Hundred Twelve Thousand Five Hundred Dollars (\$112,500); provided, however, that such appropriation shall be deemed and held valid notwithstanding the provisions of the Budget Act. All general administrative expenses of the Commission, the compensation and expenses of its employees, and the cost of investigations, planning, surveying, as authorized by this Act, shall be paid from the Administration Fund and also the cost of all preliminary work on any project and all expenses directly chargeable to such project, prior to the receipt of the proceeds of bonds, shall be paid from the Administration Fund.

The Commission shall have authority to receive and accept appropriations and contributions from any source of either money or property or other things of value, to be held, used, and applied for the purposes in this Act provided. (S.L. 1937, Ch 255)

It was exceedingly clear that the Legislature intended that any financial assistance for actual construction of projects would come from the "construction fund", the primary source of which was to come from the issuance of revenue bonds, also authorized by the 1937 legislation. During the early years, up to 1957, resolutions and minutes of State Water Commission meetings indicate that the Commission was very active in making loans from the proceeds of revenue bonds for water development, primarily to irrigation districts. Since that time, however, the revenue bond authority of the State Water Commission has not been utilized, and as a result the "construction fund" activities of the State Water Commission have ceased. During the 1979 Legislative Assembly an attempt to increase the revenue bond limit of 3 million dollars was unsuccessful.

During the same time period that the State Water Commission was actively utilizing revenue bonds and the "construction fund", the Legislature also appropriated general fund moneys to the State Water Commission for cost-sharing for specific water-related projects (i.e., irrigation, drainage in the Red River Valley), but did so as a line-item appropriation to the State Water Commission's "administrative" fund.

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The first appropriation to the State Water Commission of \$112,500 was for investigations, planning, surveying, and other preliminary work on projects. However, beginning in 1943, the Legislature began to make appropriations to the State Water Commission's "Administrative Fund" for cost-participation for the construction of water projects. The following was a line item in the 1943 appropriation bill for the State Water Commission's administration fund (S.L. 1943, Ch. 77):

To promote the maintenance of existing
drainage channels in good agricultural
lands and to construct any needed channels -----\$50,000.00

In 1945, the Legislature appropriated \$240,000 to the "Administration Fund" of the State Water Commission for "assistance on reconstruction of drains or irrigation" (S.L. 1945, Ch. 141). From 1947 through 1953, the Legislature appropriated a total amount of \$440,000, specifically designated by line-item for "Construction and Reconstruction of Drains or Irrigation". In 1953, for reasons unknown, the Legislature deleted the line-item in the State Water Commission "Administration Fund" appropriation (S.L. 1953, Ch. 58) and instead enacted a separate appropriation bill for drainage and irrigation. The Legislature also enacted a separate appropriation bill for drainage and irrigation in 1955, for an amount of \$200,000, and included other watershed or flood control programs as eligible items for cost sharing as well (S.L. 1955, Ch. 58). (The State Water Commission biennial reports up to 1957 indicate that most general fund money appropriated to the State Water Commission for cost-sharing was used for drainage projects in the Red River Valley.)

In 1957, the Legislature included cost participation funds for all projects in a separate appropriation bill and created the "multiple purpose cooperative fund" (S.L. 1957, Ch. 43). This fund was in addition to the biennial appropriation to the State Water Commission's "Administration Fund", (the "Administration Fund" was limited to employee salaries, etc.) and in essence, combined into one bill North Dakota's State Water Commission "public works" program. It provided:

AN ACT

Making an appropriation to the state water conservation commission for participating in the investigation, planning, construction, and maintenance of multiple-purpose projects for beneficial utilization, control and management of public waters and repealing chapter 58 of the North Dakota Session Laws of 1955.

Be It Enacted by the Legislative Assembly of the State of North Dakota:

§1. APPROPRIATION.) There is hereby appropriated out of any moneys in the state treasury, not otherwise appropriated, the sum of two hundred thousand dollars to the state water conservation

commission, to be available for the purposes herein mentioned until expended, in order to enable the commission to participate, in conformity with such rules and regulations as it shall prescribe, in the investigation, planning, construction and maintenance of projects, including, but not limited to, projects for flood control, hydroelectrical power, irrigation, drainage, development of water supplies for irrigation, municipal, industrial and domestic uses, and for recreation, fish and wildlife propagation, and pollution abatement and control.

§2. DESIGNATION OF FUND. TRANSFER OF UNUSED BALANCE OF PRIOR APPROPRIATION AUTHORIZED.) The moneys appropriated to the commission by this Act shall be covered into a fund designated "multiple-purpose cooperative fund" and any unused balance of moneys appropriated to the state water conservation commission under and by virtue of chapter 58 of the North Dakota Session Laws of 1955 shall be transferred to such fund and the moneys therein shall remain available until expended.

§3. REPEAL.) Chapter 58 of the North Dakota Session Laws of 1955 is hereby repealed.

Approved March 12, 1957.

You will recall that in 1937 the Legislature directed the State Water Commission to establish an "administration fund", a "construction fund" and a "revenue bond payment fund" (S.L. 1937, Ch. 255, §25; codified as §61-02-64 of the NDCC). In 1965 the Legislature amended Section 61-02-64 and replaced the "administration fund" with a "contract fund". Section 61-02-64 was amended to read as follows:

61-02-64. FUNDS CREATED BY COMMISSION - DEPOSITORY.—The commission shall have three funds to be known as the "contract fund", the "construction fund", and the "revenue bond payment fund". The moneys in each such fund shall be deposited in the state treasury.

Section 61-02-64.1. created and established the contract fund:

61-02-64.1. CONTRACT FUND - PURPOSE - REIMBURSEMENTS TO BE DEPOSITED WITH THE STATE TREASURER. —All contractual obligations of the commission, excepting salaries and expenses of commission employees and the cost of any supplies, materials and equipment, shall be paid from the contract fund. The moneys in the contract fund shall be paid out or disbursed in such manner as may be determined by the commission. Any moneys paid to the state water commission by any department, agency, or political subdivision of this or another state or of the United States or any person or corporation to meet its part of the cost of a water project, shared with the commission on a matching basis, and as determined by a

contract entered into with the commission, shall be deposited with the state treasurer and are hereby appropriated out of the state treasury and shall be credited to the contract fund.

The contract fund actually served to replace the "multiple purpose cooperative fund" which had been established and continued by legislative appropriation beginning in 1957. Since 1965, cost participation by the State Water Commission on water-related projects has come from the "contract fund", which, as previously stated, is supplied biennially by legislative appropriation from the state general fund.

To summarize the financing authorities of the State Water Commission, the North Dakota Legislature has been fairly aggressive, in comparison to other states, in providing general fund moneys for water related activities and projects. In 1979, the legislative appropriation to the State Water Commission "Contract Fund" was \$2,305,000 (S.L. 1979, Ch. 70). In 1981, the legislative appropriation to the State Water Commission was approximately \$3,780,000, (HB-1031) not including the appropriation of \$983,000 for the Southwest Pipeline Project. With respect to revenue bonds, although the authority has not been used for some time, it is still a viable and necessary financing alternative for certain water projects. The interim notes for construction-period financing was only authorized by the 1981 Legislative Assembly (HB-1540) and thus has not yet been exercised.

D. Use of Water: Authority Over Large-Scale Water Permits and Reservation of Water.

While the State Engineer has primary authority to process water permit applications, and make decisions to approve or disapprove such applications, the Legislature has vested the State Water Commission with two specific authorities in the area of waters and water rights. Section 61-04-06 of the North Dakota Century Code provides, in part:

61-04-06. HEARING - CRITERIA FOR ISSUANCE OF PERMIT.

* * *

If approved, the approval shall be noted on the application, and the State Engineer shall issue a conditional water permit allowing the applicant to appropriate water. Provided, however, the commission may, by resolution, reserve unto itself final approval authority over any specific water permit in excess of five thousand acre-feet.

Section 61-04-31 provides, in part:

61-04-31. RESERVATION OF WATERS - PUBLIC HEARING - NOTICE.

1. Whenever it appears necessary to the state engineer, or when so directed by the commission, he may be regulation:
 - a. Reserve and set aside waters for beneficial utilization in the future; and

- b. When sufficient information and data are lacking to allow for the making of sound decisions, withdraw various waters of the state from additional appropriations until such data and information are available.

* * *

These authorities need little further explanation. Apparently, the Legislature felt that these two matters are of greater public consequence, and thus deserve the consideration of the State Water Commission.

To conclude this discussion of the authority and role of the State Water Commission, the primary function of the Commission is to serve as the "water authority" for water development in North Dakota. As will be seen by the discussion of the authority and role of the State Engineer, the North Dakota Legislative Assembly has expressed its desire that the State Water Commission devote itself to the role of "water authority" and vigorously pursue the development of North Dakota's water resources.

II. ROLE & AUTHORITY OF THE STATE ENGINEER

The first State Engineer in North Dakota was appointed by Governor Frank White on July 7, 1904. The following excerpt from the First Biennial Report of the State Engineer to the Governor of North Dakota best summarizes the office as it existed at that time.

No legislation having been yet enacted concerning the office and duties of state engineer, I have endeavored, since you appointed me to that office July 7, 1904, under the direction of the executive committee of the State Irrigation Association, to accomplish as a beginning those portions of the customary work of that office of which there was the most immediate need. The following quotation from the Laws of the State of Wyoming (Rev. Stat. 1899, Sec. 104), sums up briefly the customary duties:

"The state engineer shall make, or cause to be made, measurements and calculations of the discharge of streams, from which water shall be taken for beneficial purposes, commencing such work upon those streams as are most used for irrigation or other beneficial purposes. He shall collect facts and make surveys to determine the most suitable location for constructing works for utilizing the water of the state, and to ascertain the location of the lands best suited for irrigation. He shall examine reservoir sites and shall, in his reports, embody all the facts ascertained by such surveys and examinations, including wherever practicable, estimates of the cost of proposed irrigation works, and of the improvements of reservoir sites. He shall become conversant with the waterways of the state, and the needs of the state as to irrigation matters, and in his reports to the governor he

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shall make such suggestions as to the amendment of existing laws or the enactment of new laws as his information and experience shall suggest, and he shall keep in his office full and proper records of his work, observations and calculations, all of which shall be the property of the state." (1904)

In 1905, the North Dakota Legislature enacted an irrigation code, and at the same time it statutorily created the office of the State Engineer. The State Engineer was vested with the general supervision of the waters of this state, including the measurement and appropriation thereof.

The State Engineer carried out these duties until 1937, when he was given additional duties as the chief technical adviser of the State Water Commission. The 1937 legislation creating the State Water Commission stated that "the State Engineer shall be the chief technical adviser of the commission. The State Engineer shall exercise such powers and perform such duties, in addition to his regular duties as State Engineer, as the Commission shall direct and prescribe". Thus, since 1937, the State Engineer has carried out the various regulatory duties vested by the Legislature, and he has also served as the chief engineer and secretary of the State Water Commission.

A. Regulatory Authorities.

After 1937, as the Legislature enacted new laws to address emerging water-related issues and problems, it often vested the particular authority with either the State Water Commission or the State Engineer, without any expressed reason, and in some cases, it seems, without clear consistency. For example, in 1957, the Legislature adopted a new statute requiring a permit prior to the construction of certain drains. The permit was to be obtained from the State Water Commission. Also, the Legislature enacted statutes requiring permits for the construction of certain dikes and dams. These permits were also to be obtained from the Commission. At the same time the Legislature was vesting these regulatory authorities for drainage, dikes, and dams with the State Water Commission, it was continuing to retain authority over water permits with the State Engineer. In some instances, this co-mingling of regulatory authority resulted in the necessity of securing a construction permit for an impoundment from the State Water Commission, and a water permit from the State Engineer. From a practical standpoint, each of the various permits was handled in the same manner. However, the co-mingling of regulatory authority did create some uncertainty.

Beginning in 1977, the Legislature began a very clear pattern of vesting all regulatory authorities with the State Engineer. In 1977, regulation of drainage was placed under the authority of the State Engineer. In 1979, regulation of dam and dike construction was also placed under the State Engineer's authority. During the last legislative interim, the Natural Resources Interim Committee conducted a study of floodplain management and water management districts. In both instances, the

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Interim Committee, and subsequently the Legislature, were careful in delegating regulatory responsibilities to the State Engineer. (The floodplain management study culminated in HB-1076, and the Water Management District study resulted in HB-1077). This pattern culminated with the approval of HB-1536 by the 1981 Legislative Assembly. HB-1536 provided, in part:

SECTION 6. STATE ENGINEER TO BE SUBSTITUTED FOR THE WATER COMMISSION.

1. Whenever the term "water conservation commission", "water commission", or "commission", or any derivative of those terms, which when used in context, indicates an intention to refer to that commission regarding those duties specified in section 61-04-01, 61-04-03, and 61-04-04 and chapters 61-16 and 61-20, shall appear in the North Dakota Century Code, the term "state engineer", or "engineer", as the case may be, shall be substituted therefor. The state engineer shall be substituted for, shall take any action previously to be taken by, and perform any duties previously performed by the water commission under sections 61-04-01, 61-04-03, and 61-04-04 and chapters 61-16 and 61-20.

These amendments seem to very clearly express the Legislature's intent that all regulatory authorities pertaining to water resource management and control be vested with the State Engineer. The implication is also clear that the State Water Commission is to devote its attention to the extremely important and critical role of "water authority" for development of North Dakota's water resources.

Due to the foregoing legislative history, the State Engineer is currently responsible for four regulatory programs. In this capacity, the State Engineer is a separate administrative agency:

1. Water Permits. Section 210 of the North Dakota Constitution, and §61-01-01 of the North Dakota Century Code, provide that virtually all water in North Dakota is owned by the public. Chapter 61-04 of the North Dakota Century Code prescribes the requirements for securing a water permit for beneficial use of water. North Dakota follows the "prior appropriation" doctrine in allocating water, which means that "first in time is first in right". We are presently involved in an extensive effort to establish consistent procedures for amending and forfeiting water permits, interpreting statutory provisions for various circumstances, and updating many water permits which are not consistent with statutory provisions. Since water rights are considered to be property rights, it is important that the proper procedures be followed in making decisions affecting water rights. It is likely that this effort will include two or three requests for Attorney General opinions by the State Engineer in the near future.

2. Drainage. Section 61-0-22 of the North Dakota Century Code requires a permit for draining a pond, slough, or lake that has a watershed area of 80 acres or more. The permit must be approved by the local water management district, and in certain cases also the State Engineer. The Legislature has given the primary enforcement responsibility over drainage to local water management districts by virtue of §61-16-50 of the North Dakota Century Code. The State Engineer's role in this area, has been to provide assistance to local water management districts in establishing effective drainage programs, including hearings, forms, orders, and general guidance. In addition, legal assistance is also provided to water management districts. Section 61-16-40 of the North Dakota Century Code provides, in part:

61-16-40. STATE'S ATTORNEY AND ATTORNEY GENERAL TO ASSIST BOARDS - EMPLOYMENT OF COUNSEL. ...The Attorney General shall render such legal opinions or such other assistance as he is required to render to county and state officers...

In three or four instances we have filed lawsuits against water management districts under Chapter 32-40 of the North Dakota Century Code, which is the North Dakota Environmental Law Enforcement Act, for failure to carry out the provisions of §61-01-22 and §61-16-50.

3. Construction of Dikes And Dams. Section 61-16-15 of the North Dakota Century Code requires a permit from the State Engineer and the appropriate local water management district prior to the construction of certain dikes, dams, or other similar devices. The Legislature also has given primary enforcement responsibility concerning dikes and dams to water management districts by virtue of §61-16-51 of the North Dakota Century Code. We provide much the same assistance to water management districts under this program as we do for drainage.
4. Floodplain Management. As previously stated, the 1981 Legislature enacted the North Dakota Floodplain Management Act, which was the result of an interim study. The state floodplain management act was introduced to encourage and promote wise and proper development of floodplains through local governmental entities, and thereby prevent future flood damages from occurring, and also to ensure that North Dakota citizens are eligible to receive federal flood disaster assistance in the future. To carry out these objectives, the new act is based on three underlying principles:
 1. First, and foremost, floodplain management activities are to be carried out by local governmental entities, as is presently being done under the National Flood Insurance Program (NFIP).
 2. Second, rather than encumber the entire state with floodplain management requirements, the new act would apply only to those communities which have been designated by the Federal Emergency Management Agency (FEMA) as being flood-prone.

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3. Third, the new act contains the same standards as the NFIP, so that communities do not have to operate under two separate programs. Rather, it is designed to supplement and support the NFIP, and provide assistance to communities in fulfilling the requirements of required floodplain management activities.

With these objectives and principles in mind, the new floodplain management act gives the State Engineer the authority to assist communities and FEMA in delineating floodplains and floodways, and to work with communities to bring them into compliance with floodplain management requirements. The Act also provides necessary enforcement authority to ensure that the intent and provisions of the floodplain management act are properly carried out.

I think it is plain to see that the regulatory authority and role of the State Engineer is quite extensive and important.

B. Chief Engineer and Secretary of the State Water Commission.

Section 61-03-01 of the North Dakota Century Code establishes the State Engineer's role as chief engineer and secretary of the State Water Commission. It provides:

61-03-01. STATE ENGINEER - APPOINTMENT - QUALIFICATIONS - TERM - SALARY - ENGAGING IN PRIVATE PRACTICE. The state engineer shall be appointed by the state water conservation commission. Such engineer shall be a technically qualified and experienced hydraulic engineer and also shall be an experienced irrigation engineer. He shall serve as secretary and chief engineer of the commission. Such engineer shall hold his office for such term as the commission may determine, and the commission shall fix his salary and shall allow his actual and necessary traveling expenses while away from his office in the discharge of his official duties. The state engineer shall not engage in private practice but shall devote all of his time to the duties and requirements of his office.

In order for the State Water Commission to aggressively pursue water development in North Dakota, it must have access to sound technical advice as well as the ability to implement its policies for water development. For this purpose, the State Engineer is the chief engineer and secretary, and thus the chief staff member, of the State Water Commission. For some water related activities and projects authorized and approved by the State Water Commission, the technical assistance and implementation work is carried out by staff members employed by the State Water Commission and the State Engineer. In other instances, such as the Southwest Pipeline Project, this work is done by consulting engineers and other consultants on a contract basis. The role of the State Engineer is extremely important if the policies of the Legislature and the State Water Commission for water development are to be effectively and efficiently implemented.

III. ACTIVITIES OF THE LEGAL DIVISION

A. Litigation. Due to the many water resource issues which are emerging in North Dakota, and the controversy surrounding some of these issues, litigation is often utilized to resolve these controversies. The following is a brief summary of water resource litigation in North Dakota:

1. Intake Water Company vs. Yellowstone River Compact Commission; Gary Fritz, George Christopolus and L. Grady Moore, as members of the Yellowstone River Compact Commission; Mike Greely, Attorney General of the state of Montana; Vernon Fahy, the State Engineer of the State of North Dakota; and the North Dakota State Water Commission.

This case represents a challenge by Intake Water Company to Article X of the Yellowstone River Compact. The Yellowstone River Compact is between the states of North Dakota, Montana, and Wyoming, was ratified by the U.S. Congress, and is codified as Chapter 61-23 of the North Dakota Century Code. Article X of the Compact provides:

ARTICLE X. No water shall be diverted from the Yellowstone River Basin without the unanimous consent of all the signatory states. In the event water from another river basin shall be imported into the Yellowstone River Basin or transferred from one tributary basin to another by the United States of America, Montana, North Dakota, or Wyoming, or any of them jointly, the state having the right to the use of such water shall be given proper credit therefor in determining its share of the water apportioned in accordance with article V herein.

In addition to challenging the constitutionality of Article X, the lawsuit challenges a Montana statute which prohibits diversion of water outside the state of Montana without prior approval by Montana's legislature.

Intake Water Company vs. Yellowstone River Compact Commission, et al., was initially filed in 1974, but was stayed by U.S. District Court Judge Battin pending resolution of another lawsuit between Intake and the Montana Department of Natural Resources to determine whether Intake had a valid water right from the Yellowstone River. Montana Department of Natural Resources vs. Intake Water Company. The Supreme Court of Montana ruled that Intake did have a valid appropriation of 80,650 acre-feet of water per year from the Yellowstone River (558 P 2d 1110, Mont. 1976) and Intake is now pursuing its challenge of Article X of the Yellowstone Compact. Intake plans to divert water out of the Yellowstone River Basin to Beaver Creek of the Little Missouri basin, which constitutes a trans-basin diversion requiring approval of the three signatory states pursuant to Article X.

Intake filed an amended complaint on October 1, 1980, and moved to dissolve and stay of proceedings. The stay was dissolved on October 17. All named defendants in the case except for L. Grady Moore, who filed an answer, have filed motions for dismissal of the amended complaint.

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2. National Wildlife Federation vs. Clifford Alexander and North Dakota State Water Commission, Defendant-Intervenor, Civil Action No. 77-1687.

This lawsuit is generally associated with the Channel A project recently constructed by the Ramsey County Water Management District near Devils Lake. Prior to the construction, The Corps of Engineer determined that a permit for the Channel "A" project pursuant to §10 of the 1899 Rivers & Harbors Act (33 U.S.C. §403) was not necessary. The National Wildlife Federation brought suit seeking injunctive relief against construction of the Channel A project, and a court order directing the Corps to promulgate regulations expanding its jurisdiction under §10. The Federal District Court ruled in favor of the National Wildlife Federation, and the case was appealed. The Court of Appeals reversed, and stated that §10 jurisdiction did not extend to Devils Lake because Devils Lake was not a "navigable water of the U.S." However, upon remand, the District Court ordered the Corps to expand its regulations under §10. The State Water Commission and the Department of Army again appealed.

3. Oahe Conservancy Subdistrict et. al vs. Clifford Alexander and the State of North Dakota, Intervenor-Defendants. Civil No. 78-1006.

This case was resolved in 1980, in North Dakota's favor. If you desire further information concerning the case, please let me know.

4. North Dakota State Water Commission and North Dakota State Engineer vs. Board of Commissioners, Cavalier County Water Management District, and Willard Crockett.

This lawsuit pertains to Rush Lake in Cavalier County. It was initiated in 1976 by the State Water Commission and State Engineer against the Cavalier County Water Management District for failure to exercise its responsibilities, and against Willard Crockett for construction of several dikes, dams, and drainage ditches in or adjacent to the bed of Rush Lake. The case was brought under the environmental law enforcement act of 1975 (Chapter 32-40 of the North Dakota Century Code) and has the longest history of delays of any case I've ever experienced. Basically, the case is an enforcement action against violation of §61-01-22 and 61-16-15 of the North Dakota Century Code, and attempts to establish that the State Water Commission has police power authority to some extent over meandered lakes. The meandered lake issue is novel for North Dakota, and upon resolution of the outstanding issues in the case, I have planned to appeal the case to the North Dakota Supreme Court. Most of the issues have been resolved against the State Water Commission and State Engineer.

5. Cavalier County Water Management Board vs Soren Iverson & Bonita Iverson, and North Dakota State Water Commission, Intervenor.

The original parties to this action stipulated to intervention by the State Engineer for the single purpose of addressing the validity of Rule 61-01-22.16 of the State Engineer's rules governing the drainage of water. The action is a drainage enforcement action, and our intervention is limited to interpretation of drainage regulations of the State Engineer. Our limited intervention is to remain consistent with the State Engineer's policy of deferring to and supporting water management districts which are actively pursuing drainage problems.

6. Mikkelson vs. Renville County Water Management District. This is an appeal of a decision of the Renville County Water Management District wherein it ordered Mikkelson to remove an "illegally" constructed dike. While the state is not a party to the action, I have provided some assistance to the Renville County Water Management District in this matter.

7. Arenson vs. City of Fargo, Cass County Drain Board, & State Water Commission. This is an action for damages for alleged flooding on land owned by the Arenson's, which they claim was caused by the diversion of the Sheyenne River. The State Water Commission provided assistance for this project.

8. Hogue vs. Burleigh County Water Management District. The Burnt Creek Diversion was constructed to divert flood waters from Burnt Creek directly to the Missouri River. Land owned by the Plaintiffs was flooded in the spring of 1979, according to the Plaintiffs, as a direct cause of the negligent design of the floodway project. The plaintiffs won the case in district court, and were awarded approximately \$14,000 in damages. The Burleigh County Water Management District appealed to the Supreme Court. The State Engineer requested the Supreme Court's permission to file an amicus curiae brief in this appeal, which was granted.

B. Other.

The Legal Division is involved in various other matters for the State Water Commission and the State Engineer, including legislation, administrative matters, and during the upcoming biennium, will devote much time to matters relating to the Southwest Pipeline Project.

IV. MATTERS AT HAND

A. Southwest Pipeline Project.

In March of 1981, the State Engineer recommended to Water Resource Districts in southwestern North Dakota that they create a joint board, to more effectively address water supply problems in that area. As you

are aware, SB-2338 was approved, as amended, by the 1981 Legislature. SB-2338 is the bill which appropriates \$983,000 to the State Water Commission to contract for a pipeline delivery system for southwestern North Dakota, and provides for a water facility construction fund from the 6½% oil tax which was created by Measure 6. While SB-2338 provides that preliminary designs for a water supply facility for southwestern North Dakota will be developed, SB-2338 does not address the questions of who will actually construct the project if the state decides to proceed with this venture, and who will operate and maintain the project once it is constructed. SB-2338 requires that preliminary designs for the pipeline delivery system must be submitted to the Legislative Council on or before October 1, 1982. It is anticipated that the 1983 Legislative Assembly will then be called upon to make a decision concerning actual construction of the water supplementation project. If so, it would appear necessary for the Legislature to address at the same time the questions of who would construct, operate, and maintain the project, and who would wholesale the water.

The State Engineer recommended the creation of a joint powers board among water districts in southwestern North Dakota for three primary reasons:

- 1.) A minimum of seven counties will be served by water from a pipeline delivery system. During the development of preliminary designs for the pipeline delivery system in the next 18 months, as authorized by SB-2338, a joint water resource board consisting of representatives from each water management district could serve as an excellent base to provide local input and to advise the State Water Commission in making decisions. Such an entity would ensure representation throughout the entire area served, and would facilitate direct water resource district involvement in the primary water problems in their area.
- 2.) It is logical, as previously stated, that the SWC construct the pipeline delivery system envisioned by SB-2338. However, it is equally logical that some local entity take over operation and maintenance of the project, as well as to serve as the wholesaler of water to rural water systems, municipalities, and other water users. If it is determined that a local entity is most appropriate to fulfill these functions, that local entity would need two things:
 - a.) representation throughout the entire area served.
 - b.) powers and authorities to carry out these functions.

A joint water resource board would have both, and thus would be in a good position to carry out these functions, if it is determined that a local entity should do so.

- 3.) If water resource districts are going to be of any significance in western North Dakota in terms of the primary water problem in southwestern North Dakota, a joint water resource board would give them the forum through which to provide local leadership in providing water supplies to southwestern North Dakota.

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At the present time, we are in the process of developing a joint powers agreement for the West River. Since the Southwest Pipeline Project will be a major endeavor of the State Water Commission for the near future, the foregoing is presented to you for your information and consideration. A meeting has been scheduled for June 1, 1981, in Richardson, at 10:00 MST, among West River Water Resource Districts to discuss this matter.

B. Basin Electric Water Permit.

Basin Electric has recently filed a water permit application of 9,000 acre-feet for the third unit of the Antelope Valley Station near Buelah. Your future consideration of this matter will be required.

In conclusion, it is hopeful that the foregoing information will be helpful to you.

Sincerely,

Michael Dwyer
wd

Michael Dwyer
Assistant Attorney General

MD:pw

NORTH DAKOTA STATE WATER COMMISSION

OFFICE MEMO

MEMO TO: Vernon Fahy, State Engineer
David A. Sprynczynatyk, Director of Engineering
FROM: Paul D. Urban, Investigation Engineer
SUBJECT: Status of Current Investigations - SWC Project #1
DATE: May 26, 1981

The following is an updated list of current engineering projects being investigated by the State Water Commission engineering staff and a brief description of the status of each. These projects are broken down into three categories: active, inactive, and dropped projects. Active projects are those currently under some phase of study by the engineering division staff. Inactive projects are those projects where the engineering investigation is complete and its implementation depends on the decision of the appropriate water management board. Projects that have been inactive for a few years and have had no progress or have been completed, have been put on the dropped list.

I. ACTIVE PROJECTS

1. Little Coulee - SWC Project #1724
County: Benson
Date of Agreement: April, 1980
Deposit: \$2,000
Status: This project will study the water carrying capability of the coulee from Iverson Dam to the confluence with Lower Mauvais Coulee. Field surveys have been completed and preliminary engineering work is in progress. The hydrology study is nearly complete.

2. Big Coulee Dam - SWC Project #1418
County: Towner
Date of Agreement: April, 1980
Deposit: \$1,000
Status: The purpose of this project is to study the feasibility of raising the control elevation of Big Coulee Dam. This would provide better fishing and boating. The City of Bisbee uses the reservoir for its water supply, and the water quality is bad. Also, the existing spillway is

a 54 inch metal pipe which has been causing a few problems. Based on our experience with these pipes, we will probably have to replace it soon. Field surveys have been completed. A lath line was set up to show the shoreline if the dam was raised two feet. It appears that the reservoir will be out of the original permanent easement area on the east side and a few other areas.

3. Sheyenne River Snagging and Clearing - SWC Project #1344
County: Barnes
Date of Agreement: January 29, 1981
Deposit: \$2,000
Status: This is a survey of the Sheyenne River from Baldhill Dam south to the Barnes - Ransom County Line. It was to identify problem areas that need to be snagged or cleared and access the seriousness of them. Aerial photos of the river were taken. Field counts were taken in select areas to calibrate the information from the photos. The report has not yet been written.

4. Beulah Flood Control - SWC Project #1732
County: Mercer
Date of Agreement: February 9, 1981
Deposit: \$5,000
Status: This is an investigation of a dry dam in northeast Beulah. Development has severely encroached on the northeast coulee as it runs through town. Surveys are being done on the damsite, proposed emergency spillway route, and in the developed areas downstream. There are some problems with the emergency spillway routes. The south route goes through the commercial park and involves crossing utilities and streets. The east route will have possibly a 50 foot cut.

5. Rost Lake - School Section Lake (Lake Metigoshe) - SWC Project #330
County: Bottineau
Date of Agreement: January, 1980
Deposit: \$1,000
Status: The purpose of the project is to provide Lake Metigoshe with water during dry periods and maintain the water level. Old survey data has been found. A field inspection of the area concluded that this information should be adequate for preliminary studies. The preliminary engineering and hydrologic analysis have been at a standstill.

6. Painted Woods Lake - SWC Project #160
County: McLean
Date of Agreement: November, 1978
Deposit: \$250
Status: This project is to determine the feasibility of installing a controlled outlet structure on the lake. The preliminary engineering work is in progress. A hydrologic analysis has been completed.

7. Grand Forks City Water Supply - SWC Project #1536

County: Grand Forks

Date of Agreement: September, 1977

Deposit: \$1,500

Status: This study is to determine the feasibility and design for a new water supply dam on the Red River of the North, just below the existing dam. Topographic mapping and field surveys have been completed by our staff. For the last two and one-half years there has been no progress on this investigation. In the fall of 1978 the existing Riverside Park Dam underwent major repairs. This was to have assured an adequate water supply for the next ten to fifteen years. In the spring of 1980 the downstream apron of the dam failed. The city requested proceeding with the feasibility study of a new dam in a letter dated June 9, 1980.

II. INACTIVE PROJECTS

1. Lower Mauvais Coulee - SWC Project #1614

County: Benson

Date of Agreement: October, 1979

Deposit: \$2,500

Status: Lower Mauvais Coulee serves as the outlet for Lake Irvine and Lake Alice and drains into the Devils Lake Basin. There are plans to increase the discharge from Lake Irvine which will have effects on the downstream channel and structures. The investigation included a study of the effects of increased flow through the coulee and recommendations as to what can be done to improve flow control. This included the sizing of a new outlet structure for Lake Irvine. Field surveys and the hydrologic analysis have been completed. The preliminary engineering report is complete and has been presented to the Water Management Board.

2. Apple Creek - SWC Project #331

County: Burleigh

Date of Agreement: June, 1980

Deposit: \$3,000

Status: The purpose of this project is to investigate and determine the feasibility of constructing a water control structure, or structures, on the upper reaches of the East Branch of Apple Creek for storing floodwaters for release at a later time. A hydrologic study of the basin has been completed. Preliminary engineering on the Neideffer site has been completed. An economic analysis of the project yielded a benefit-cost ratio of 0.35:1. The preliminary engineering report was presented to the Board in March, 1981.

3. Sarnia Dam - SWC Project #291
County: Nelson
Date of Agreement: June, 1978
Deposit: \$500
Status: The preliminary design for the repairs to this dam is complete. It is to be operated as a dry dam for flood control purposes. The preliminary engineering report was presented to the Water Management Board in June, 1979. The cost estimate was updated in November of 1980. This project is being considered for funding as one of the Red River Joint Water Management Board's flood control projects.

4. Horseshoe Lake Drain - SWC Project #1668
County: Nelson, Walsh and Ramsey
Date of Agreement: October, 1978
Deposit: \$2,000
Status: This is an agricultural drainage project located at the north edge of McHugh Slough. The field survey has been completed and plan and profile drawings have been drafted from survey notes. About 75% of the surrounding land is included in U.S. Fish and Wildlife easements. This may present a problem. The preliminary engineering report has been completed and was presented to the Board in February, 1981.

5. Dead Colt Creek - SWC Project #1671
County: Ransom
Date of Agreement: April, 1977
Deposit: \$3,000
Status: The preliminary engineering report was completed and presented to the Water Management Board on November 30, 1979. The board has decided to go ahead with the project and are in the process of applying for funds. Before final design can be done, additional subsurface explorations will be needed to more accurately determine the areas having previous material which could cause seepage problems. Also, final design of the dam must be analyzed for stability. The Red River Joint Water Management Board has voted to contribute \$500,000. Committed funds for the project are about \$300,000 short.

6. Richland County Drain #65 - SWC Project #1207
County: Richland
Date of Agreement: March, 1979
Deposit: \$750
Status: This investigation is to determine the feasibility of improving Drain #65 and its laterals. The field survey and hydrologic analysis have been completed. Plan and profile sheets have been drawn and the preliminary engineering is complete. A report was presented to the Board in March, 1981.

7. Minto Dam - SWC Project #448
County: Walsh
Date of Agreement: January, 1978
Deposit: \$500
Status: The preliminary design of the new channel dam is complete and the feasibility report was presented to the Board in March, 1980. The project was found to be feasible on structural, geological and hydrologic grounds. However, it is questionable whether the available storage will meet demands during long dry spells. The downstream site was recommended as the preferred location.

8. East Branch Shell Creek - SWC Project #1656
County: Mountrail
Date of Agreement: June, 1976
Deposit: \$2,500
Status: During the spring of 1979, the city of Parshall experienced severe flooding. A hydrologic analysis of the area has been completed and alternative solutions for decreasing the severity of future floods have been investigated. The preliminary engineering report was completed in September, 1980 and was presented to the Board.

9. Hidden Island Coulee - SWC Project #1702
County: Towner
Date of Agreement: October, 1978
Deposit: \$750
Status: This is essentially a channel improvement project to decrease flooding problems. The hydrologic analysis and preliminary engineering work have been completed. The preliminary engineering report was completed in March, 1980 and sent to the Water Management Board. A dry dam alternate was recommended rather than channel cleaning and reconstruction or dividing flow so high discharges go south. At this time, we have not heard from the Water Management Board as to what alternative they want to go with.

10. Oak Creek Dam - SWC Project #1324
County: Bottineau
Date of Agreement: October, 1973
Deposit: \$1,000
Status: The preliminary engineering investigation showed that there is no viable solution to the flooding problems in the city of Bottineau. It was suggested to the city that they proceed with the Federal Flood Insurance Program. As a follow up to this report the Board is considering cleaning out a stretch of the Oak Creek channel east of Gardena.

11. Buffalo Lake - SWC Project #565

County: Pierce

Date of Agreement: July, 1979

Deposit: \$1,500

Status: The feasibility study for raising the embankment was completed in March, 1979. Costs for the project are estimated to be about \$60,000. A more detailed preliminary design was sent to the Board to enable them to see what the project would look like. The Board is in the process of acquiring easements for the area to be flooded. At this time we have not heard whether to proceed with the final design or not.

III. DROPPED PROJECTS

1. Park River Snagging and Clearing - The project has been completed.

A project to improve the outlet to Sweetwater-Morrison Lakes and improve the channel down to Dry Lake has been proposed by the Ramsey County Water Management Board. At this time we have not received a request to enter into an investigation agreement.

Paul D. Urban

Paul D. Urban, P.E.
Investigation Engineer

PDU:mb

NORTH DAKOTA STATE WATER COMMISSION

OFFICE MEMO

MEMO TO: David A. Sprynczynatyk, Director, Engineering Division
 FROM: Arland C. Grunseth, Construction Engineer
 SUBJECT: 1980 Construction Activities - SWC Project #1
 DATE: May 11, 1981

Northgate Dam Modification - SWC Project #667, Burke County

Project work began the first week of September 1979, with the excavation of the embankment to remove the corrugated metal pipe and the inlet and outlet concrete structures. The metal pipe was replaced by a 48" \emptyset R.C.P., supported for its entire length on a cast in-place reinforced concrete cradle. The new intake structure is a double box low level (hypolimnetic) water control structure. The pipe discharges into a rock plunge pool.

Construction operations at referenced dam were terminated in early December 1979 due to cold weather and conditions considered unsuitable for the prosecution of work. Although the embankment had not reached crest elevation, an embankment plug (temporary fill section) was machine compacted and constructed to crest elevation. Riprap protection was not provided on this fill section. However, heavy polyethylene sheeting was placed on the upstream slope and covered by additional fill material to insure against the threat of spring flooding and breaching of the dam.

Progress Report #12 for project work ending November 21, 1979, indicated all bid items were completed, except for the following:

<u>Description</u>	<u>Percent Completed</u>
Rock Riprap	69.8
Rock Riprap Filter Material	76.3
Installation of Gate Equipment	24.2
Trash Rack, Ladders & Misc. Metals	0.5
Seeding	0
Percent of Contract Time Expired	77.5
Percent of Contract Completed	86.9

On May 13, 1981, construction operations officially resumed at Northgate Dam. The embankment plug was removed in its entirety and rolled, compacted earthfill was brought to crest elevation. The remaining riprap work, installation of gate equipment and miscellaneous jobs were completed. Due to lack of sufficient subsoil moisture, the decision was made to delay seeding operations until the fall of 1981.

Project acceptance was delayed until February 1981 in accordance with Sub-section 105-16.2.1 of Standard Specifications (See project memo dated 2/18/81).

Final contract amount - \$172,217.46.

Epping Dam Modification - SWC Project #346, Williams County

Bids were opened at 11:00 a.m., CDT, May 27, 1980. Construction operations began on June 17, 1980. Work prior to July 7th involved the demolition and removal of the old rubble masonry spillway structure; bridge demolition and removal; excavation and removal of old manhole; installation of a concrete plug in drawdown pipe; partial embankment excavation and replacement with rolled, compacted earthfill; and excavation of the stilling basin.

On July 11th, the first concrete pour for the new structure was made. About 50 C.Y. of concrete was poured for the stilling basin slab. Hereafter, at least one concrete pour was made every week. The west inlet wingwall was the last pour made on September 22nd.

Construction of the new reinforced concrete open chute spillway and bridge, plus associated earthwork and rock riprap features involved 82 working days. Final concrete quantities involved 309 C.Y. of wall concrete and 452 C.Y. of slab concrete.

Final inspection of project work was conducted on October 15, 1980. Final payment was made on November 3, 1980.

Final contract amount - \$357,221.74.

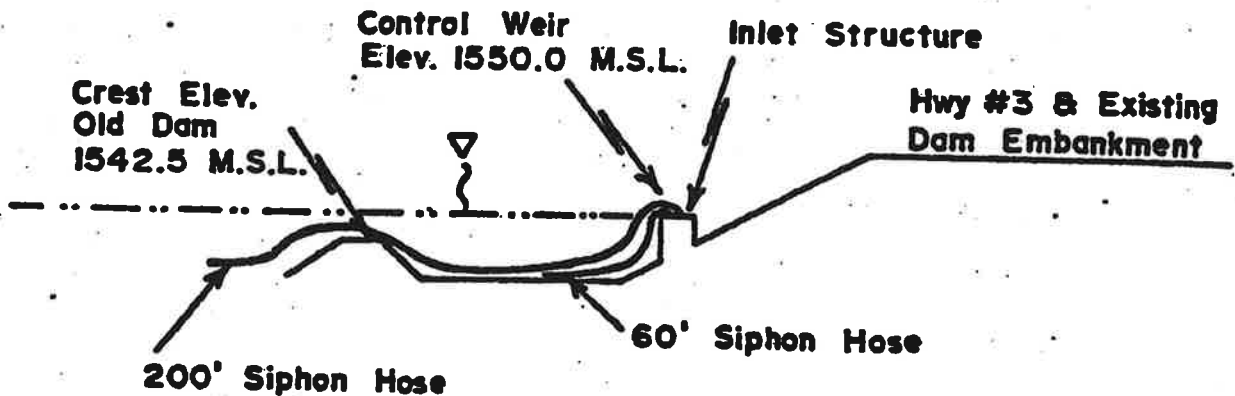
Edmore Dam Repair - SWC Project #927 - Ramsey County

Project work began May 12, 1980. Major work involved the removal of the existing damaged radial gate and controls; construction of two new reinforced concrete gate towers; installation of a modified gate that was salvaged from the Minot Water Supply Dam; installation of a ladder and walkway; and associated earthwork repairs. Project work was completed on June 24, 1980.

Total cost - \$16,152.44.

Harvey Dam - SWC Project #671, Wells County

On June 25, 1980, SWC construction personnel and volunteer labor from the Harvey Wildlife Club installed a low level drawdown system at referenced dam. Two, 4" diameter siphon hoses were used. The longest siphon hose was installed from the inlet box to a point approximately 200 feet upstream. It extends upstream beyond the old dam embankment, which is completely submerged. The other siphon hose was installed from the inlet box to a point approximately 60 feet upstream. Illustration of the siphon system is shown below.



Upstream about 100 feet is the old dam with an ogee type overflow with a crest elevation of 1542.5 MSL. Highway No. 3 serves as a road-dam combination downstream of the old dam with a concrete weir box and a corrugated metal pipe through the roadway. Control weir elevation is established at 1550.0 MSL. The effect of this is a sort of double-celled sedimentation basin. All the sediments and water borne nutrients tend to settle out within the old upstream reservoir. There is no outlet to this lower level cell. Therefore, eutrophication has proceeded unchecked, causing an odororous, stagnant impoundment.

The low level drawdown system was used for the first time in the spring of 1981 and proved to be highly successful. After its initial installation, the locals should be able to maintain and reinstall it every spring.

No cost report was submitted for installation of the low level drawdown system. However, the State Game and Fish Department provided \$1,160.00 for materials.

Sheep Creek Dam - SWC Project #1358, Grant County

On June 27, 1980, SWC construction personnel made the following modifications to referenced dam: (1) Install a drain valve to release water that seeps into the manhole and freezes during the winter, and (2) Install an extension to the existing valve stem. This will allow operation of the control valve at ground surface at the top of the manhole.

The State Game and Fish Department provided the necessary materials at a cost of \$188.34.

Long Creek Dam Repair - SWC Project #993, Divide County

Project work began June 30, 1980. Major work involved site preparation;

removal of spalled and loose concrete on the weir slope and downstream apron; sandblasting to remove all rust, dirt, and foreign substances; and the application of approximately one-inch of gunite (pneumatically applied mortar) to the required areas. The entire surface area beneath the weir slope and apron was also checked for cavitation. Based on our inspection and repair, the dam appears to be in good shape and hopefully will remain structurally sound for years to come. Project work was completed on July 11, 1980.

Total cost - \$5,095.69.

Cottonwood Creek Dam - SWC Project #1515, LaMoure County

The North Dakota State Game & Fish Department requested the SWC to participate in the installation of a low level drawdown pipe at referenced project. Project work involved the installation of approximately 400 L.F. of 12" diameter plastic pipe underwater by a diving crew. The labor and equipment necessary to install the pipe and fittings were provided by the SWC.

The State Game & Fish Department provided \$2,601.46 for purchase of materials. Diving crew costs and expenses are unknown.

Project work began July 28, 1980 and was completed July 30, 1980.

Sykeston Dam - SWC Project #450, Wells County

The construction joints on the lower end of both training walls have separated several inches. Repair was accomplished by installing a 12" wide by 8' long steel plate on the soil side of each construction joint. The steel plates were attached to the concrete walls by use of redhead anchors. The purpose of the steel plates were twofold: (1) reduce joint separation and erosion (2) Help retain the gasket or joint filler and the mastic

material that was inserted into the construction joints. A few trees in the approach channel were also cut and removed.

Project work began August 4, 1980 and was completed August 6, 1980.

Total cost - \$1,497.74.

Sheyenne Dam - SWC Project #518, Eddy County

On August 7, 1980, SWC construction personnel hauled and placed approximately 20 C.Y. of gravel and 50 C.Y. of rock on the dam abutments. The repair work did not involve any cutoff sheeting or clay fill material as originally proposed on the "Damage Survey Report".

Total cost - \$963.33.

Pheasant Lake - SWC Project #501, Dickey County

On August 25 and 26, 1980, personnel from the G&FD and the SNC, with assistance from a professional diver, installed an additional 160' of 8" diameter pipe to the existing low level drawdown system. The existing system as installed in 1980, did not perform adequately. This was chiefly due to its inadequate length and insufficient depth for the cold water intake end. However, with the additional pipe, greater depth at the intake end should allow for a more efficient cold water and low level drawdown system.

No cost report was prepared for this project. However, a statement prepared by the G&FD dated 10/2/79 indicated their costs at \$1,014.42.

Grand Forks Riverside Park Dam - SNC Project #520

During the period of June 6 to October 28, 1980, SWC construction personnel installed a new downstream reinforced concrete apron at referenced dam. Repairs to the dam were last made in the fall of 1978. At that time a new downstream apron was constructed, but failed during the 1979 spring

flood. The cause for the failure will probably never be known, but there is reason to believe that a portion of the downstream apron became undermined and eventually tore loose from the lower lip or toe of dam, causing complete failure.

Construction methods utilized this time were much the same as in 1978. Construction began on the North Dakota side of dam. Phase one of the operations involved construction of the upstream and downstream earthen cofferdams; demolition of the existing apron slab and the lower portion of the sloping face (toe of dam); removal of all concrete rubble, rock, and river sediment to grade; sawing and removal of existing downstream horizontal timbers; placement of 4 to 6 inch diameter rock about one foot in thickness within apron area; placement of reinforcing steel; installing two-inch weep pipes seven feet apart; and pouring the concrete apron (See page 9). The new concrete apron is about three feet lower in grade than previous slab and extends about 20 feet downstream of toe of dam. Approximately 76 C.Y. of concrete was utilized in construction of the new apron.

Phase two of the operations involved work on the lower portion of the sloping face (toe of dam). As previously mentioned, the concrete facing was removed in its entirety, along with the rubble and rock. Additional rebar was then installed and tied to the reinforcing steel of both the sloping face and apron. Four to six inch diameter rock was again used for bedding material prior to the concrete pour. Reconstruction of the lower lip required 24 C.Y. of concrete, with an additional 5 C.Y. required to repair the lower portion of the abutment wall.

Phase three of the operations involved the following: removal of the downstream cofferdam in conjunction with the placement of large field stone (riprap) downstream of the apron; removal of the upstream cofferdam; cleanup

and site restoration; and movement of equipment to the Minnesota side of the dam on October 3, 1980.

Repair work resumed October 6, 1980 on the Minnesota side. Repairs to the dam on this side and sequence of events were much the same as on the North Dakota side.

Total concrete placed on the Minnesota side is as follows:

Location of Pour	Quantity (C.Y.)
Downstream apron	85½
Sloping face (lower lip or toe)	25
Lower portion abutment wall	5½


Major materials used on the project are:

Earthen cofferdam	8,060 C.Y.
Four to six inch rock	263 C.Y.
Gravel (bedding material)	20 C.Y.
Concrete	221 C.Y.
Reinforcing steel (#4 bar)	14,326 LB.

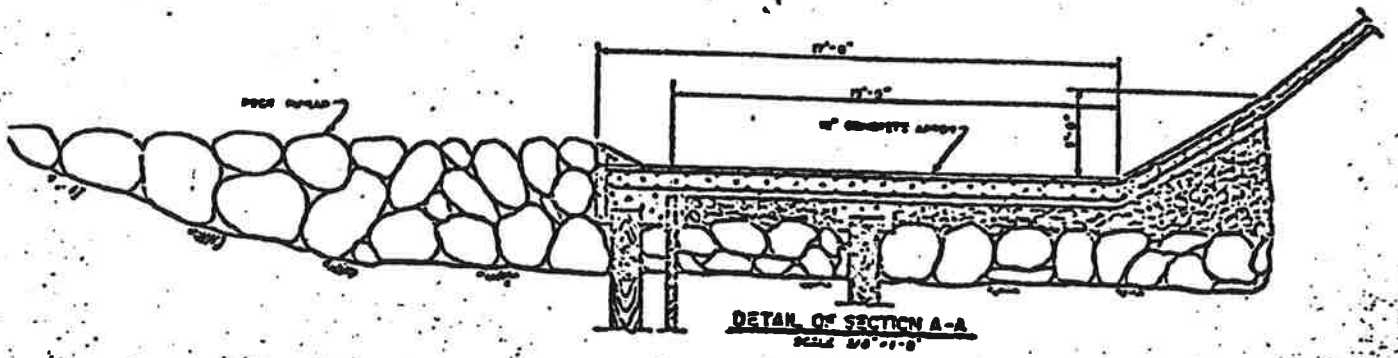
Total Project Costs:

State Water Commission	\$ 71,199.67
City of Grand Forks	<u>57,708.32</u>

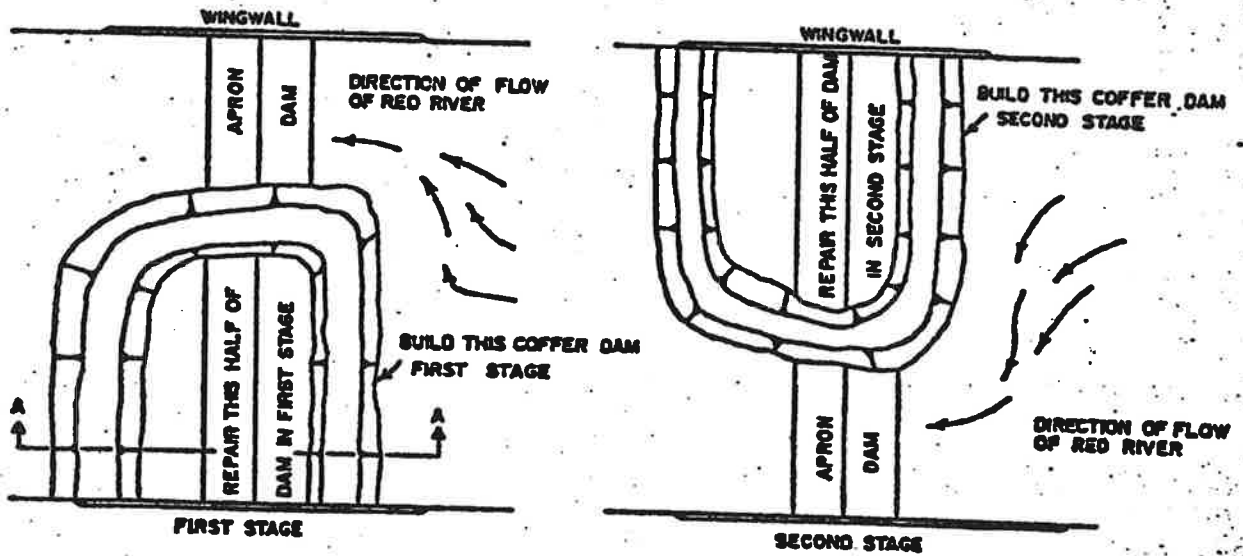
TOTAL \$128,907.99


Arland C. Grdnseth
Construction Engineer

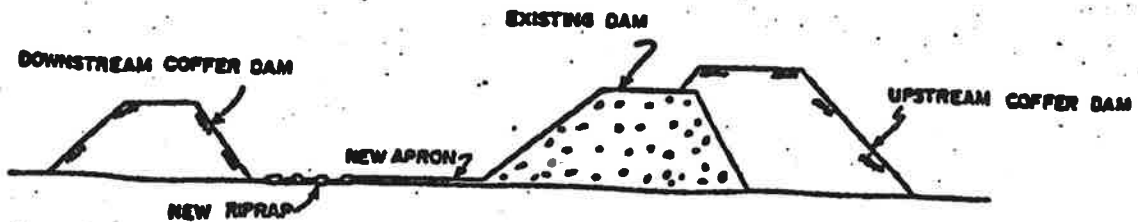
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MINNESOTA SIDE



NORTH DAKOTA SIDE



SECTION A-A
TYPICAL SECTION THROUGH DAM SHOWING
UPSTREAM AND DOWNSTREAM COPPER DAMS
(NOT TO SCALE)

NORTH DAKOTA STATE WATER COMMISSION

OFFICE MEMO

MEMO TO: David A. Sprynczynatyk, Director, Engineering Division
FROM: Arland C. Grunseth, Construction Engineer
Ronald Swanson, Design Engineer
SUBJECT: Proposed Construction & Repair (1981) - SNC Project #1
DATE: May 13, 1981

Epping Dam Recreation Area - SNC Project #346, Williams County

Construct recreation area. Start May 11, 1981

Project calendar days allowed to complete work: 60 days

Contractor's proposed completion: 30 days from starting date.

Carbury Recreation Area - Boundary Creek WS (SCS)
SNC Project #1342, Bottineau County

Construct recreation area at the Soil Conservation Service Boundary
Creek Dam in Bottineau County.

Mott Dam - SNC Project #249, Hettinger County

Construct earthen cofferdam, inspect gates, order replacements, install,
remove coffer, etc.

Sarnia Dam - SNC Project #291, Nelson County

Drain lake, salvage and stockpile topsoil and rock riprap. Install new
42" ϕ CMP spillway, excavate new 100 foot wide emergency spillway using
material to raise and reconstruct embankment, spread topsoil and seed, install
rock riprap.

Cottonwood Creek Dam (Lake LaMoure) - SNC Project #1515, LaMoure County

Install drain valve in manhole and extension stem to main control valve
for low level drawdown system. Install extension pipe on foundation drain

to raise outlet above downstream water level.

Cedar Lake Dam - SWC Project #353, Slope County

Install 12" \emptyset gate valve in manhole to control low level drawdown system.

Install 2" \emptyset valve in manhole to drain seepage water out of manhole.

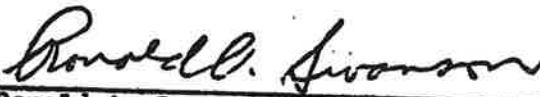
Lake Hiawatha Recreation Area - Sykeston Dam
SWC Project #450, Wells County

Construct recreation area at Sykeston Dam.

Tolna Dam No. 1 - SWC Project #266, Nelson County

Project repair work will involve restoration with "pneumatically applied mortar" (gunite) to those areas of the weir face and lower downstream apron slab. A cutoff wall may also be installed.


Arland C. Grunseth


Ronald A. Swanson
Design Engineer

ACG:RAS:dm



NORTH DAKOTA STATE WATER COMMISSION

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**bismarck 58505
north dakota**

MEMO TO: Vernon Fahy, State Engineer
 FROM: David A. Sprynczynatyk, Director, Engineering Division
 SUBJECT: Southwest Pipeline Project - SWC Project #1736
 DATE: May 26, 1981

Looking ahead on the Southwest Pipeline Project Study, there are a number of key dates that the State Water Commission should be aware of. These dates relate to points in time at which the Commission should be aware of information that is made available, or points in time at which the Commission will be involved in decision-making for key items relating to the project. It would be advantageous to schedule Commission meetings on or immediately following these key dates. Following is a list of the dates and an explanation of what will have to be done at that time.

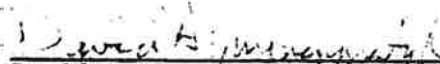
- June 24, 1981 - This is the date by which the Selection Committee will have made a recommendation to the Commission for an engineering consultant. The Commission should meet on this day in order to review the recommendation. This should be done as quickly as possible in order to insure that the consultant will have the maximum amount of time possible to complete the work mandated by the Legislature.
- Aug. 10, 1981 - A meeting during the second week of August will allow the engineering consultant to make a progress report to the Commission. At this meeting, the consultant would most likely be able to present information on some of the alternatives that he will be studying during the first 3 months. Although, there probably will not be any decisions to be made at this meeting, it will be very important that the Commission be kept up-to-date regarding the progress of the consultant.

Sept. 15, 1981 - This is the deadline by which the engineering consultant must present alternatives to the Commission. From these alternatives, it will be required that the Commission select a recommended alternative for the consultant to develop more detailed information on. The Commission would then have approximately 30 days to review the alternatives.

Oct. 15, 1981 - The Commission must select a final alternative by this date in order for the consultant to proceed with the preliminary design. In making the decision by October 15, it is assumed that there would be approximately 30 days of favorable weather in order to allow the consultant to obtain all the field data necessary on the final alternative.

From October 15th on, it would be desirable for the Commission to meet approximately once a month to be briefed on the work of the consultant.

The next most significant date would be August 1, 1982. At that time the consultant will present the final draft report to the Commission for their consideration. By September 15, 1982, all corrections to the draft report must be made so that the consultant can prepare the final report which must be presented to the Legislative Council by October 1, 1982.



David A. Sprynczynatyk, P.E.
Director, Engineering Division

DAS:dm