

STATE WATER CONSERVATION COMMISSION
MINUTES OF MEETING HELD IN
Bismarck, North Dakota
September 27, 1962

COMMISSION MEMBERS PRESENT:

Oscar Lunseth, Vice Chairman, Member from Grand Forks
Einar Dahl, Member from Watford City
William W. Corwin, Member from Fargo
Henry Steinberger, Member from Donnybrook
Richard Gallagher, Member from Mandan
Math Dahl, Commissioner, Department of Agriculture & Labor, Bismarck
Fred Fredrickson, Planning Coordinator, Valley City
Milo W. Hoisveen, Secretary and Chief Engineer, State Engineer, Bismarck

OTHERS PRESENT:

Senator Jerome Nesvig, Buxton
Carrol Flesche, Finley
L. P. Austenson, Northwood
E. C. Anderson, Hatton
O. F. Spies, Mayville
Russell Stuart, Commissioner, State Game & Fish Department, Bismarck

The meeting opened at 9:40 a.m. with Vice Chairman Lunseth presiding. Present were Commissioners Einar Dahl, Corwin, Steinberger, Math Dahl and Secretary Hoisveen and Mr. Fredrickson.

GOVERNOR GUY'S
REPRESENTATIVE AT
COMMISSION MEETING

Secretary Hoisveen informed the Commission members that in case a majority of the members are not present for a Commission meeting the Governor may now legally appoint a representative to carry on his functions when absent. In a letter to Secretary Hoisveen, Governor Guy requested Mr. Hoisveen to act for him at the Commission meeting. The Governor also referred to the application for a water right of the Basin Electric Power Cooperative and believed that it was to the best interest of the State of North Dakota that such a request be granted. Secretary Hoisveen stated that the Basin Electric Power Cooperative had filed an application to appropriate water of the State of North Dakota. The Notice of Hearing was being published in the Hazen Star, a weekly newspaper which has wide circulation in Mercer County. The hearing has been scheduled for October 9 at 10:00 a.m. in the office of the Water Commission. No serious objections are anticipated relative to the granting of this water right. Commissioner Einar Dahl stated that the Lignite Electric Power Cooperative has requested they be notified of the hearing and requested the Secretary to write to them informing them of the date of hearing. It was the consensus of opinion of the Commission members that a water right should be granted to the Basin Electric. There was discussion as to how the water right could be granted immediately after the hearing. The members agreed that this could be best accomplished through a special meeting and requested that the Secretary schedule a meeting for October 9th at 2:00 p.m.

APPROVAL OF MINUTES FOR
AUGUST 29, 1962 MEETING

ing be approved. On voice vote the motion was carried.

It was moved by Commissioner Einar Dahl and seconded by Commissioner Math Dahl that the minutes of the August 29th meet-

FINANCIAL STATEMENTS FOR
July and August 1962

held in abeyance at the request of Governor Guy. It was opined that the financial statement would be available to Governor Guy for his review. It was moved by Commissioner Einar Dahl and seconded by Commissioner Corwin that the financial statements for July and August 1962 be approved. The motion carried.

The financial statements for July and August were explained by the Secretary. The July financial statement had been

COOPERATIVE EQUIPMENT INSURANCE
WITH STATE HIGHWAY DEPARTMENT

relative to consolidating the Commission's equipment insurance with that of the Highway Department. Personnel of the State Water Commission have made such contact. The Commission was notified that the Highway Department was agreeable to the consolidation. The Highway Department handles the purchase of insurance on equipment on a competitive bidding basis which would be most acceptable to the Commission. A letter was received from the Department of Accounts and Purchases authorizing the State Water Commission to proceed with the consolidation of insurance with the Highway Department. They requested they be notified when the insurance contract is ready to be signed.

The Commission members, at the August meeting, requested the staff members to contact the State Highway Department

request bids for vehicle insurance, as this type of insurance was not included with the consolidation. At the present time the Commission carries collision insurance on its vehicles.

It was suggested that the State Engineer

and seconded by Commissioner Corwin that the Commission approve the consolidation with the State Highway Department on equipment insurance and that the State Engineer request bids for vehicle insurance. Motion carried.

It was moved by Commissioner Steinberger

BIDS FOR ACOUSTICAL TILE

noise in the administrative section of the Commission office it appeared advisable to install acoustical ceiling tile for that portion of the office. The approximate cost of material and installation is \$390. It was moved by Commissioner Steinberger and seconded by Commissioner Math Dahl that the Commission approve the installation of acoustical tile and that bids be solicited for such installation. Motion carried.

The Secretary informed the Commission members that because of the excessive

VELVA BAYOU PROBLEM

number of bayous which serve to enhance the flow of water during flood periods; however, one bayou formerly caused water to back into the underpass which was constructed under the Soo Line Railroad embankment. To protect the underpass a dike was installed at the outlet of the bayou to prevent the back water affecting it. No provision was made in the dike to release the water which entered the bayou after the flood waters receded thereby causing a health problem. Because of the flood, the City of Velva does not have much in the way of funds available to them. They have requested help from the State Water Commission to repair and install an automatic gate in the dike. The cost would approximate \$402.85. It

Secretary Hoisveen stated that the area around and in the city of Velva has a

was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the Commission approve the expenditure, not to exceed \$403, to repair the dike in the City of Velva. On voice vote the motion was carried.

**RESOLUTION -
CITY OF VELVA**

The resolution adopted by the State Water Commission at its August 29th meeting relative to the Corps of Engineers taking immediate action to plan and construct flood protective works for the City of Velva through the authority granted them under Public Law 685 was forwarded to the Corps of Engineers, St. Paul District Office, and to the North Dakota State Highway Department. The Corps sent a man into the flood area as soon as they were requested to do so by the Commission. Indications are that it is possible the Corps may be in a position to construct a system of levees to protect Velva from Bonnes Coulee as well as a system of levees on the Souris River, which has also caused damage in the past. Suggested plans have been made and forwarded to the Corps by the Commission staff.

GOLDEN LAKE PROJECT

Secretary Hoisveen briefed the Commission members on the present status of the Golden Lake Project. Several years ago interested citizens in the Golden Lake area requested a survey and investigation relative to restoring Golden Lake. After a survey by the Commission staff, it was determined that the project could best be accomplished by constructing a dam in Beaver Creek which would serve to divert water from Beaver Creek into Golden Lake. It was necessary to construct a channel and a series of drop structures to divert the water through the channel into what is known as Rush Lake which is a part of a chain of lakes. The water is then diverted through a second channel into Golden Lake. The State Water Commission has, to a considerable degree, been in the process of filling Golden Lake since construction was completed four years ago. There has been very little flood water available until this spring. As a consequence everyone was eager to fill the lake to a high elevation during the spring runoff period. Unusually heavy rains have filled the lake to an elevation which is critical. Moderate rainfall or snow melt in the spring could cause the lake to overflow and impair the lake as well as valuable agricultural land. The Commission's long range plan is to divert the water into North Golden Lake and then back to the lower reaches of Beaver Creek. This would permit circulation of the water. The Commission was informed that a delegation desired to appear before the Commission relative to accomplishing some system of temporary relief to forestall flooding in the event further rain occurs in that area. Secretary Hoisveen recommended that the delegation be advised to obtain easements in the North Golden Lake area into which the excess water must be drained. It was his opinion that the Game and Fish Department should also participate in the cost of installing temporary drop structures as it would be necessary to use care in draining excess water from Golden Lake into North Golden Lake. This would be necessary as a gradient of 30 feet exists between the two lakes which are less than three-fourths of a mile apart.

Messrs. Nesvig, Flesche, Austenson, Anderson and Spies appeared before the Commission on behalf of the Golden Lake Restoration Corporation. Mr. Anderson acted as spokesman for the group. Mr. Anderson explained their reason for appearing before the Commission. A colored map of Golden Lake was used to further aid him with his explanation. Mr. Anderson expressed appreciation for what the State Water Commission had done to date.

He stated that the Golden Lake Restoration Corporation had through local subscriptions expended \$20,000 for developing this area. He averred that if there was a heavy snowfall this winter there would be a tremendous runoff and considerable flooding would result under normal snowfall as the soils are now saturated. They indicated a desire to have about two feet of water drained from Golden Lake.

Secretary Hoisveen, commenting on the problem, averred that whatever was done in North Golden Lake should be a part of an over-all project which would permit the return of the water to Beaver Creek. It was the recommendation of the Water Commission that the responsibility for opening and closing the gates be under the jurisdiction of the State Water Commission. The group was informed that a Commission survey party was working in the Golden Lake area at the present time obtaining information and topography, etc. The material will be available the end of this week. It was implied that the present problem in caring for the situation is a financial one. Mr. Anderson stated that the County Commissioners would loan them the culverts on a temporary basis for the necessary channel. Whatever work is done would be temporary to alleviate the threat of flooding. There was considerable discussion as to ways of alleviating the present situation in Golden Lake and the financial responsibility of the sponsors of the project. Mr. Russell Stuart, Commissioner, State Game and Fish Department, was also present and stated that the Game and Fish Department had invested approximately \$40,000 in the project. The State Water Commission had invested approximately \$30,000 in addition to the amount that the Golden Lake Restoration Corporation had invested in the project. It was the opinion of the Commissioners that something would have to be done to save the investment in Golden Lake. Secretary Hoisveen indicated that approximately \$3,200 would be needed to install temporary structures between the two lakes. This would not permit an ideal system of control. No decision was reached and the meeting recessed until 1:30 p.m.

The Commission meeting reconvened at 1:30 p.m. with Commissioner Math Dahl absent.

GOLDEN LAKE
(Continued)

Mr. Stuart reported that, after checking available funds, that the Game and Fish Department would contribute \$800 towards the temporary structure on Golden Lake. It was recommended that the Commission inform the Golden Lake Restoration Corporation that contact should be made with the County Commissioners to obtain the necessary culverts for the project. The Commissioners also recommended that a legal entity be formed in order that the two interested state agencies would have a taxing body to deal with. It was moved by Commissioner Gallagher and seconded by Commissioner Corwin that the Commission contribute \$800 towards the cost of the Golden Lake project in cash, plus \$800 maintenance, the Game and Fish Department to contribute \$800 and the local corporation to furnish all necessary easements and to furnish all pipe to meet the minimum requirements of the State Engineer. Carried.

The Golden Lake delegation again appeared before the Commission. Commissioner Lunseth informed the group of the action taken by the Commission and what was required of the group before participation on the part of the State Water Commission and the Game and Fish Department. The group was also informed that it would be advisable for them to form a legal entity within their county or counties. If a legal entity were created a levy

up to 3 mills could be available to them. The organization should have a permanent status. Mr. Anderson stated he was sure the county commissioners would not want to loan their culverts for several months and the corporation did not have the money with which to buy easements. Secretary Hoisveen emphasized the fact that the gates should be controlled by the State Water Commission and the Game and Fish Department. The group left to see what could be done about securing the necessary easements so the work could be commenced on the project immediately.

**BUFORD-TRENTON PROJECT
(Corps of Engineers)**

Secretary Hoisveen stated that the Corps of Engineers constructed revetment work on the Missouri River near the Buford-

Trenton project several years ago. The Corps of Engineers expressed a desire to close out the project. Secretary Hoisveen indicated that high flows have not occurred in the Missouri River since the installation was made and the project has not had a fair test. Since this request was made by the Corps degradation has occurred in the channel bed thereby reducing the flow line below the pump intake level on the Buford-Trenton project. The Corps has consented to lower the pump intake. The Corps is again requesting approval of the project but before approving the same the State Engineer has expressed a desire to see what the results of lowering the intake will be.

**MISSOURI RIVER BANK
STABILIZATION**

Mr. Fredrickson reported that Senator Young called him and stated he had made arrangements for the Chief Clerk to look

over the Missouri River Bank stabilization problem below the Garrison Dam. He implied that Mr. Kenneth Bousquet is the best informed man on the Army Engineer projects. It was thought that the Corps could take care of the stabilization under the item of maintenance under the Garrison Dam and Reservoir project. It is a part of the maintenance cost of the project and not a project itself.

REPORT OF STATE AUDITOR

The report of the State Auditor for the period June 30, 1960 to June 30, 1961

concerning the audit of the State Water Commission was reviewed by the State Water Commissioners. It was moved by Commissioner Einar Dahl and seconded by Commissioner Corwin that the audit report be received and placed on file. Carried.

**GAME AND FISH WATER RIGHT
REQUEST ON TRIBUTARY OF
CANNONBALL RIVER**

Mr. Stuart, Commissioner, State Game and Fish Department, requested permission to file an application for a water right on an unnamed stream, a tributary to the

Cannonball River. They propose to build a combination stockwater and fishing dam in Grant County on the unnamed stream. The Soil Conservation Service is willing to put in a considerable amount of money through the ASC program to raise the stream and has requested the sum of \$800 from the Game and Fish Department. No water rights have been issued on this stream for sometime. The area will approximate 15 surface acres and will impound 88 acre-feet. Before going ahead with the project Mr. Stuart would like to be assured that the Game and Fish Department will be granted a water right. It was moved by Commissioner Corwin that the Game and Fish Department make application for a water right and if favorable, after the hearing, the State Engineer and the State Water Commission will approve the same. The motion was seconded by Commissioner Gallagher. The motion carried.

**DECLARATION OF INTENT
ON PEMBINA RIVER**

A resolution, declaration and notice of intention of the North Dakota State Water Conservation Commission to store, divert,

withhold, withdraw and control all the unappropriated public waters of the Pembina River, its tributaries and aquifers in the basin thereof, in North Dakota was read to the Commissioners. The resolution is Annex A. The resolution does not exclude anyone from securing water from the Pembina River but merely gives the State Engineer the right to control the water and to appropriate the water as requested. It was moved by Commissioner Corwin and seconded by Commissioner Gallagher that the Commission approves the adoption of the resolution. Carried.

**SUGGESTED MODIFICATIONS IN
DECLARATION OF INTENT
LEGISLATION**

At the August meeting of the Water Commission Governor Guy requested Mr. Fredrickson to prepare a memorandum for presentation at the next meeting of the

State Water Commission on the ambiguity, implication and disparity of certain provisions of the state water laws relating to a declaration by the Water Commission of intention to store, divert or control unappropriated waters. Mr. Fredrickson prepared the memorandum, which is attached and marked Annex B. Mr. Fredrickson recommended that some time be set aside, at a Commission meeting, to go over the proposed changes in the water laws to see if they meet with the approval of the Commission members.

**CORPS OF ENGINEERS LETTER PERTAINING
TO RESTORING RUSH LAKE TO
ORIGINAL ELEVATION**

The State Engineer received a letter from Mr. G. E. Lyon, Chief, Engineering Division, Corps of Engineers, relative to the development of a wildlife refuge in the

Pembina basin near Rush Lake. The following information was supplied to the Corps of Engineers by the Fish and Wildlife Service. "The Rush Lake area in Cavalier County, North Dakota, has been surveyed as a potential National Wildlife Refuge. The project area we studied encompassed 26,900 acres. It includes Rush Lake proper and all the adjoining lowlands subject to flooding - an area of approximately 8,000 acres. The plan of development envisioned a control structure in Snowflake Creek northeast of Rush Lake to restore the original meandered lake level. The water supply would be dependent solely on runoff. Rush lake is a sump. The drainage area above the lake is in excess of 300 square miles, but much of this is noncontributing. The tributaries draining into Rush Lake are usually dry from June 1 to April 1. Water overflows into Snowflake Creek, a tributary of the Pembina River, after the lake has filled. Since this occurs only during periods of heavy runoff, the water stored on the proposed refuge would, for the most part, be unappropriated surplus flood water. The impoundment created would be very shallow (maximum depth 6', average depth 2'), and would have a storage capacity of approximately 15,000 acre-feet. To satisfactorily operate the proposed refuge, we would need the right to store water up to the lake capacity each year."

Mr. Hoisveen informed the Commissioners that no water right has been requested by the Fish and Wildlife Service relative to this project. Sometime ago a public meeting was held and 80 farmers were opposed to the project.

**NATURAL RESOURCES SUBCOMMITTEE
LEGISLATIVE RESEARCH COMMITTEE**

The Commission was informed that the Subcommittee on Natural Resources will meet in Bismarck on Monday and Tuesday, October

8 and 9, 1962. Subcommittee bills which have not received final action, rather

extensive bills based upon suggestions of the State Engineer and Mr. Fred Fredrickson, will be presented.

Mr. Fredrickson recommended that Commissioner Gallagher be present when the water legislation is considered.

**NW BELL TELEPHONE COMPANY REQUEST
TO INSTALL SUBMARINE CABLE ACROSS
THE RED RIVER**

The Northwestern Bell Telephone Company proposed to place a submarine cable across the Red River of the North, north of Fargo, in Cass County. The telephone company

has requested the approval of the Water Commission for such a crossing. It was moved by Commissioner Corwin and seconded by Commissioner Einar Dahl that the request of the Northwestern Bell Telephone Company to place a submarine cable across the Red River of the North be granted. The motion carried.

**MISSISSIPPI VALLEY
ASSOCIATION DUES**

Secretary Hoisveen requested that Mr. Fredrickson give the Commission members information pertaining to a request for

an increase in their Mississippi Valley Association dues. Mr. Fredrickson stated he and other North Dakota members of the Mississippi Valley Association had met to apportion an equitable amount to be paid in dues by the various cities in North Dakota. Commissioner Lunseth agreed to contact several business places in Grand Forks relative to payment of dues in the Mississippi Valley Association. The total dues apportioned to the state of North Dakota was \$3150. The amount due from the State Water Commission is the sum of \$300. It was moved by Commissioner Einar Dahl and seconded by Commissioner Steinberger that the State Water Commission's dues in the amount of \$300 payable to the Mississippi Valley Association be paid. On voice vote the motion carried.

**PUMP TEST RECORDERS FOR
GROUNDWATER STUDIES**

Secretary Hoisveen reported that in groundwater studies carried out by the State Water Commission, a pump test is almost

always needed to determine the transmissibility rate of the water in groundwater aquifers. This test permits the Water Commission to determine the proper spacing of wells which is a significant aid in determining the advisability of granting a water right and the quantity of water to be allocated. In the past it has been necessary to have a geologist remain at the test site to obtain well readings. By using pump test recorders it would relieve the geologist for other work and reduce the man hours considerably. The Water Commission has used the test recorder of the Quality Water Branch of the U. S. Geological Survey. It has been found that by using the recorders the Commission can save the efforts of at least two men for a period of several days. The Secretary recommended the purchase of two pump test recorders at a price of \$300. each. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the State Engineer purchase 2 pump test recorders at a price of \$600, \$300 each. On voice vote the motion carried.

CASS COUNTY DRAIN #32

Secretary Hoisveen stated that he had received a request from the Cass County

Drain Board for a clean out of Drain #32. The State Water Commission participated in this drain in 1948. The policy of the State Water Commission is not to participate in clean outs once they have constructed a drain. It was moved by Commissioner Corwin that the Secretary again advise the Cass County Drain Board of the Commission's policy relative to clean outs. The motion was seconded by Commissioner Gallagher and carried.

EATON DAM

A letter was read from Mr. Oium, chairman of the Eaton Irrigation Project, in which he requested participation on the part of the State Water Commission on the Eaton Irrigation Project in the installation of a gate structure for releasing water into the meadow area for irrigation purposes. The cost estimate of the proposed project is between \$15,000 and \$16,000. The minutes of the June 4, 1962 meeting pertaining to the request of Mr. J. C. Eaton for a survey relative to extending irrigation to 100 additional acres in the Eaton project were reviewed. It was agreed that the Commission approve participation in the installation of a gate. The Commission's share would not exceed 40% of the project cost. It was moved by Commissioner Corwin and seconded by Commissioner Gallagher that the Commission participate in the construction of a gate for the Eaton Irrigation Project. On voice vote the motion carried.

PROGRESS OF CONSTRUCTION PROGRAM

Secretary Hoisveen reported on the construction program of the State Water Commission. He stated that Antler Dam has been completed except for the riprap, which will be started next week. Bottineau County participated in the cost of the structure as it is a combination bridge and dam. On Short Creek Dam the earth work is in and almost 100% complete and the concrete work about 50% complete. The dam should be completed in about three weeks. Pembina Drain #13 has been completed. The Water Commission Shop has been completed for all practical purposes. Additional improvement will be made from time to time.

FULWILER REQUEST FOR A WATER RIGHT

Commissioner Steinberger and the State Water Conservation Commission received letters from Vernon R. E. Fulwiler requesting a permit for a water spreading project, using spring runoff coming down Willow Creek. It had been pointed out to Fulwiler that the water of the Souris River is all appropriated by the Fish and Wildlife. Commissioner Steinberger states that he has been over that area. The water originates in the mountains in flash floods. If Mr. Fulwiler retained the water he would be able to restore his pasture and make better use of it in the future. He states that he will release the water when through irrigating. His farm is in the lower reaches of Willow Creek below Minot. Secretary Hoisveen stated that no water rights were being issued on the Mouse River. It was the consensus of the Commissioners that Mr. Fulwiler would be entitled to a specified number of acre-feet of any unappropriated waters, since the Government only has the normal flow, and that Mr. Fulwiler be limited to use of the water from ten days to two weeks. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that Mr. Fulwiler be informed that he will be permitted to file an application for a permit to divert the unappropriated flood waters that come down Willow Creek, that he be permitted to have a specific number of acre-feet and that his irrigation be limited to a ten day or two week period. Motion carried.

WEATHER MODIFICATION ACTIVITIES IN NORTHWESTERN NORTH DAKOTA

Mr. Steinberger reported on cloud seeding in the northwestern part of North Dakota. He said that Mr. Hoisveen had two maps, one for May and one for June showing the precipitation in the seeded area. The seeding took place this past season.

He informed the Commissioners that next year there would be a complete set of maps for the total season showing the effects of cloud seeding. Mr. Steinberger called attention to the fact that the sowed area has a greater amount of precipitation than the surrounding territory. Mr. Steinberger reported that 17 universities in the United States are interested and studying cloud seeding data.

**RENVILLE COUNTY PRIORITY
FOR GROUND WATER STUDY**

Sometime ago applications were received from various counties for ground water studies for 1963. Their applications were taken this early for the purpose of establishing a priority date. The priority date for Renville County was overlooked. The Secretary requested permission to place Renville County in its proper priority order. It was moved by Commissioner Corwin and seconded by Commissioner Gallagher that Renville County be given its proper priority date. Carried.

FOREST RIVER REPORT

Secretary Hoisveen reported that there had been some objection to the construction of floodways from the area between Grafton and Minto. In some cases it will take about 300 feet of land from the landowners. Landowners in the confluence with the Red River have expressed concern relative to flooding. Mr. Sandwick, Office Engineer, and Mr. Glover, Hydrologist for the Commission, reported on the Forest River Watershed and their reports are attached and marked Annex C.

**FARM HOME ADMINISTRATION
MUNICIPAL WATER SUPPLY
PROGRAM**

A letter was read to the Commission which contained information that the Farm Home Administration is now making loans for the installation of municipal water supplies in rural communities and cities having a population of 2,500 or less. The Village of Ryder has applied for such a loan. Ryder has been granted a water right. There will probably be a number of cities desiring to qualify under this program.

meeting adjourned at 4:40 p.m.

There being no further business the

Respectfully submitted,

Milo W. Hoisveen
Secretary

ATTEST:

William L. Gray
Governor

ANNEX A

RESOLUTION, DECLARATION, AND NOTICE OF INTENTION OF NORTH DAKOTA
STATE WATER CONSERVATION COMMISSION TO STORE, DIVERT, WITHHOLD, WITHDRAW
AND CONTROL ALL THE UNAPPROPRIATED PUBLIC WATERS OF THE PEMBINA RIVER, ITS
TRIBUTARIES AND AQUIFERS IN THE BASIN THEREOF, IN NORTH DAKOTA

WHEREAS the progressively increasing number of applications for water rights point up the ever-growing demand upon the State's water resources and the problem of meeting even the superior beneficial uses, let alone supplying any of the inferior needs; And

WHEREAS the situation strongly suggests the urgent need for more effectively husbanding all water supplies - subsurface as well as surface - in areas of higher potential development for municipal, agricultural, and industrial purposes; And

WHEREAS the Pembina River Basin in North Dakota is an area considered having such potentials wherein it is deemed prudent and necessary, in the interest of the health and general welfare of the inhabitants of the State, to limit the granting of water rights and the withdrawal of water thereunder; And

WHEREAS the State Water Conservation Commission has the power under statutory law to effectuate such objectives by invoking its vested authority thereunder;

NOW, THEREFORE, BE IT RESOLVED by the North Dakota State Water Conservation Commission, meeting in regular session in the State Capitol, Bismarck, North Dakota, September 27, 1962, that in order to meet anticipated demands for water to properly supply such future developments and operations at various locations and points in the Pembina River Basin, it does hereby declare its intention to store, divert, regulate, and control all the unappropriated public waters of the Pembina River, its tributaries, and aquifers in the basin thereof, in North Dakota, which waters are hereby reserved, withheld, and withdrawn from appropriation from said sources for the utilization and beneficial use of present and future municipal, agricultural, industrial, and other needs and developments in said basin in North Dakota, that the means of appropriation of such reserved, withheld, and withdrawn waters for such use will be through reservoir storage, pumping, gravity diversion or other means or any combination thereof at appropriate locations and points in said basin, and said waters are hereby declared to be reserved, withheld, and withdrawn from the unappropriated public waters aforesaid to be and remain available for appropriation and use by this Commission or as otherwise authorized, granted or directed pursuant to applicable law, for the purposes and uses herein stated, of which action all interested and affected interests are hereby officially notified and will govern themselves accordingly.

Dated at Bismarck, North Dakota September 27, 1962.

For the North Dakota State Water Conservation Commission:

William L. Guy
WILLIAM L. GUY, GOVERNOR, CHAIRMAN

By S/ Oscar Lunseth
Vice Chairman

ATTEST:

s/ Milo W. Hoisveen
MILO W. HOISVEEN, SECRETARY
AND CHIEF ENGINEER

MEMORANDUM

To: Hon. William L. Guy, Governor-Chairman, State Water Conservation Commission.

From: Fred J. Fredrickson, Commission Planning Coordinator.

Subject: Ambiguity, Implication, and disparity of certain provisions of the state water laws relating to a declaration by the water commission of intention to store, divert, or control unappropriated waters.

In compliance with the request of Governor Guy at the commission meeting of August 29, 1962 pertaining to the above subject, the following is submitted.

Section 61-02-30, North Dakota Century Code provides:--

1 "Commission acquiring water rights and administering
 2 provisions of chapter - Declaration of intention.--
 3 In acquiring the rights and administering
 4 the terms of this chapter, the commission shall not
 5 be limited to the terms of the statutes of this
 6 state relating to water rights heretofore enacted,
 7 but, in addition thereto, the commission may initiate
 8 a right to the waters of this state by executing
 9 a declaration in writing of the intention to
 10 store, divert, or control the unappropriated waters
 11 of a particular body, stream, or source, designating
 12 and describing in general terms the waters
 13 claimed, means of appropriation, and location of
 14 /proposed/ use, and shall cause said notice to be
 15 filed in the office of the state engineer, which
 16 right shall vest in such commission on the day of
 17 filing of such declaration. The commission also
 18 shall file in the office of the state engineer
 19 copies of its plans and specifications involved in
 20 completing (((all appropriations of water))) /any
 21 project for the appropriation of water which it
 22 intends to construct/. The state engineer, subject
 23 to the approval of the commission, may grant water
 24 to any person, association, firm, or corporation,
 25 or to any municipality /federal or state government,
 26 or any department or agency thereof/in the
 27 manner provided by law."

Comment 1. (a) It is assumed that when writing the original text of the above section in 1937, which was re-enacted in 1939, the authors intended to provide the method whereby the commission could acquire water rights for specific projects which it intended to construct. Experience in the field of water rights and water resources development during the intervening 25 years has demonstrated the need for the acquisition by the commission of rights to waters in areas or basins and the filing of declarations of inten-

tion to store, divert, or control the same not only for a specific project or projects which the commission might undertake but also for the purpose of reserving, withholding, and withdrawing from general appropriation large or extensive sources of water in order to conserve the supply to meet anticipated future needs for beneficial superior uses.

(b) If the foregoing assumption has merit, then it is suggested that the section be amended by inserting the bracketed words in lines 14 and 20-22 and by deleting the words within the triple parentheses.

(c) The meaning of the last sentence of the section appears to be obscure or at least rather ambiguous. If it means that the state engineer, with the approval of the commission, may continue to grant limited rights to waters which have been declared to be reserved, withheld, and withdrawn then it is suggested that the words within the brackets in lines 25-26 should be inserted. If some other meaning is intended by the last sentence it ought to be made more clear.

Section 61-02-31 provides -

1 "Priority of a water right dates from when.--The
 2 priority of a water right shall date and continue
 3 from the time of the filing or recording provided
 4 for in section 61-02-30 (((if the means of actual
 5 appropriation shall be commenced by actual work
 6 of construction within two years from the date of
 7 original recording))). Change in means or place
 8 of diversion or control shall not affect the right
 9 of priority, if others are not injured thereby."

Comment 2. (a) Under section 61-04-06, as amended by S. L. 1961, ch. 378, an applicant other than the water commission shall have such time within which to complete construction as the state engineer designates when approving the application. In Line 2 of section 61-02-31 the commission is granted only 2 years within which to commence actual work of appropriation and construction.

(b) Section 61-04-14, as amended by S. L. 1961, ch. 378, provides -

1 "Extending time for completion of construction or appli-
 2 cation to beneficial use.--The state engineer may extend
 3 the time for the completion of construction, or for ap-
 4 plication to beneficial use, at any time, or from time
 5 to time, for good cause shown. Where any such time has
 6 heretofore expired, the state engineer may renew and ex-
 7 tend the same if application for renewal and extension
 8 is made prior to January 1, 1962."

(c) It is suggested that section 61-02-31 be amended either by deleting the language within the triple parentheses in lines

4-7 or by providing that the state engineer shall state in the approval of the declaration of intention by the commission the time within which the construction shall be started or completed. This suggestion is made even though the state engineer may have the authority under section 61-04-14, as amended, to extend the 2-year period mentioned in line 6 of section 61-02-31 from time to time, for good cause shown.

Dated at Bismarck, North Dakota, September 27, 1962.

s/ Fred J. Fredrickson
Fred J. Fredrickson
Planning Coordinator

ANNEX C

TO : Milo W. Hoisveen, State Engineer
 FROM : H. A. Sandwick, Office Engineer
 SUBJECT: Lower Forest River Watershed - Channel No. A #929
 DATE : September 26, 1962

In accordance with the request of Governor Guy, Dale Glover and I have checked on some of the problems of the Lower Forest River Watershed. Mr. Glover will report on the hydrology and flood routing of this project.

Mr. Charles Evans, Assistant State Conservationist, U. S. Soil Conservation Service, Bismarck, has informed us that considerable opposition has been voiced over the location of a four mile section of channel No. A. which parallels the south boundaries of sections 13, 14, 15 and 16, Twp. 156 N., R. 52 W. The farmers in the area apparently want the ditch to go any place but along their property.

The Soil Conservation Service has checked a route which would take the ditch south from the southwest corner of section 16 to the Forest River $2\frac{1}{2}$ miles away and abandoned the plan because a ditch with a 70 foot bottom would be required. They have stated they can place the ditch along the $\frac{1}{4}$ section line which is $\frac{1}{2}$ mile south of the indicated map location. One of these routes may be chosen if the objectors indicate a willingness to go along with it. Mr. Evans thinks opposition to any route for this drain will develop and the present route (with some variations) will affect the smallest number of people.

An indication of a reason for the objections to the location of channel No. A can be obtained from the following tabulation concerning its size:

Length	65,280 feet *
<u>Excavation</u>	1,685,556 yd ³ *
Base width	25 feet *
Average amount excavation	697 cu. ft./ft. **
<u>Average depth cut</u>	11.62 feet **
<u>Average top width channel</u>	94.6 feet **
Side slopes spoil banks	6:1
Height spoil banks	6.7 feet **
<u>Total r/w required</u>	291.4+ **

* from SCS Report

** computed from data given in SCS Report

If slopes flatter than 6:1 are used for the outside portion of the berm the height of the spoil bank may be reduced and the amount of right-of-way required will be increased.

s/ H. A. Sandwick
 H. A. Sandwick, Office Engineer

TO : Milo W. Hoisveen, Chief Engineer
FROM : Dale Glover, Hydrologist
SUBJECT: Lower Forest River Watershed, #929
DATE : September 27, 1962

There are two groups of objectors to the Watershed Plan for the Lower Forest River, as developed by the Soil Conservation Service.

One group occupies lands lying along the proposed location of channel No. A., which will be an entirely new ditch as there is no existing ditch in this area. Channel A will collect flood water from channels Nos. 1 & 2, whereas formerly this water flowed southward into the Forest River near Minto, North Dakota, and at times a portion flowed northward into Park River Watershed above Grafton, contributing in some measure to flood heights at Grafton, North Dakota. This area along the watershed divide is very flat, and when flooding occurs the water stands on large areas but at rather shallow depths. The direction of its flow, I am told, is dependent upon the direction of the prevailing wind. It is the purpose of channels 1 & 2 to prevent this accumulation of water by carrying it into channel A.

Alternate locations for channel A were studied by the Soil Conservation Service. A route south into the Forest River just below Minto was rejected because the flat gradient would require too large a ditch, 70 feet bottom - and deeper cuts. This route would also increase flood heights in the vicinities of Minto and Ardoch Lake. A route directly eastward from the end of channel 2 was rejected because of greater length, but principally because of additional road bridges that would be required. The planned route, with a possible shift of either $\frac{1}{2}$ mile north or $\frac{1}{2}$ mile south, was judged to be the most economical.

Channel A is designed to carry flows of 1060 c.f.s. It will be $7\frac{1}{2}$ feet deep and about 70 feet wide at the top. It was designed to prevent flooding for more than 24 hours by summer floods of 10-year frequency or less. At infrequent intervals this channel may overflow for short periods, probably in months of April.

Objectors to channel A have valid reasons. There may be losses of lands for rights-of-way, severances of lands, and inconvenience to travel and farm operations. However, there would probably be a greater number of objectors, with just as valid reasons, for any possible alternate route.

Another group objecting to channel A occupy lands lying downstream from the junction of channels A and B (Forest River). This region is especially plagued with floods from the Forest River, from the Red River, and frequently from both at the same time.

Channel B receives water from Lake Ardoch which has outlet discharge capacity of 1186 c.f.s. At present channel B can not carry 1186 c.f.s., but under the Watershed Work Plan its capacity will be increased to 1186 c.f.s. by channel enlargement. At the junction of channels A and B, channel A will add its discharge of 1060 c.f.s., and this would seem to make a flow of 2346 c.f.s. downstream from the junction. This obviously is a possible occurrence, but what is more likely is that these two flows will not coincide in time, at the channel junction. Factors indicating this are as follows:

1. Water from channel A travels, at most, about 25 miles through dug canals nearly all the way, and flow is not delayed by any retarding structures.
2. Water from channel B has its source in much more distant reaches of the three watersheds, flows in natural channels most of the way, is a little retarded by dams, and is subject to a significant delaying action by the storage effect of Lake Ardoch.
3. The channel downstream from the junction will be improved a short distance under the proposed plan. This will help get water from channel A out of the way before arrival of water from channel B.

I find the Soil Conservation Service Work Plan greatly lacking in factual data needed to properly check the designs. These are stated to be on file

in the Fargo office of the Soil Conservation Service. The degree of flood protection is rather small, as the aim of the plan is to limit the duration of flooding to 24 hours from a 10-year summer rainfall. The report on the plan acknowledges that even this can not be accomplished by the proposed structures and channel enlargements but that "land treatment measures are considered essential to an effective watershed protection and flood prevention program", and in this plan for the Lower Forest River there is an item of \$336,000 for land treatment.

I conclude that the plan will yield benefits. The improvements in drainage channels and main channels will lessen both duration and heights of all floods, but are capable of preventing only small floods. Since alternate locations for channel A are less favorable for reduction of floods, affect more people, or are more costly, it seems that the objectors to channel A will have to put up with it as planned. Careful maintenance of channel A and of channel B downstream from the junction of A and B will be necessary to avoid, as much as possible, the situations which the objectors fear.

s/ Dale Glover
Dale Glover, Hydrologist