

MINUTES OF A REGULAR MEETING

of the

STATE WATER CONSERVATION COMMISSION

Held on March 24 & 25, 1938

A regular meeting of the State Water Conservation Commission was called to order at 10 A.M., Thursday, March 24, 1938, in the Governor's conference room at the State Capitol at Bismarck, by Vice Chairman Henry Holt.

The Secretary called the roll with Commissioners Holt, Simons, Dahl, Engen, Olson and Whitney present. Governor William Langer, absent.

It was moved by Comm. Olson, seconded by Comm. Simons, that inasmuch as typewritten copies of the minutes of the last meeting held February 24 and 25 had been sent to each member and no errors being noted, that the same be approved as written. The motion carried, all Commissioners voting aye.

The Secretary then made a report as follows:

1. He stated that the purchase of the Stevens land in the Lewis and Clark Project, under the terms of a contract dated December 6, 1937, were about completed. A mortgage held by the Federal Land Bank was the only item remaining to be completed, after which a check in full payment would be sent to Mr. Fred J. Stevens, the deed going to the Rural Rehabilitation Corporation.
2. He stated that a copy of the prospectus of the Lewis and Clark Project had been sent to members of the committee appointed by the Chamber of Commerce of Williston, to handle the subscription for bonds locally and the committee was to start the canvass at once.
3. He stated that a copy of the minutes of the last meeting had been sent to the Secretary of the North Dakota Planning Board, to Technical Advisor George S. Knapp, and to Chief Engineer E. J. Thomas, as directed by the Commission at its last meeting.
4. He stated that he had taken up with Mr. Al V. Hartl the matter of making an examination of the bookkeeping system and later confirmed the conversation by letter, and that Mr. Hartl had agreed to comply with the request of the Commission.
5. He stated he had sent out requests for payment to all applicants whose projects were for engineering only, asking that payments be made at once.
6. He stated he had sent a mortgage and note covering the cost of the Grantier Project to Mr. Jay Grantier to be signed and returned to the Commission.
7. He reported that Emil Peterson, Project No. 52, and Bruno Upmeyer, Project No. 104, had failed to sign and return the note and mortgage requested in each case.
8. He read a communication from Attorney W. O. Burk in regard to land purchased since the last meeting of the Commission within the Lewis and Clark Project as follows:

"Please certify to the WPA that the Rural Rehabilitation Corporation has acquired title to the following described real estate in McKenzie County:

N $\frac{1}{2}$ NW $\frac{1}{4}$ of Sec. 11, Twp. 153, Rge. 101. (Henry Kelter).

SE $\frac{1}{4}$ NW $\frac{1}{4}$ and NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Sec. 4, Twp. 153, Rge. 101 (R. J. Browning).

9. He read a letter from Mr. Floyd Jennings, Secretary of the State Planning Board acknowledging receipt of the copy of the minutes of the last meeting.

10. He called attention to the request of Frank Lassey and Roy McColl requesting an exchange of pumps on their projects, and suggesting that the matter be referred to Comm. Dahl for investigation.

Moved by Comm. Simons, seconded by Comm. Olson, that the request for an exchange of pumps on the Lassey-McColl Projects be referred to Comm. Dahl with power to act. The roll was called and the motion carried, all Commissioners voting aye.

11. The Secretary read a resolution from the Kenmare Association of Commerce approving the work of the State Water Conservation Commission and urging that the Missouri River Diversion Project be given special attention.

Moved by Comm. Olson, seconded by Comm. Engen, that the report of the Secretary be accepted. The motion carried, all Commissioners voting aye.

Mr. George J. Baker, Extension Director, and Mr. E. G. Parizek, Assistant County Agent Leader, of the North Dakota Agricultural College, appeared before the Commission in regard to a renewal of the contract for the employment of Mr. William Farmer as Extension Irrigationist. After some discussion, they were requested to leave the matter for the consideration of the Commission who would report their decision to them later.

Attorneys J. P. Cain and Ivar Acker and Mr. J. A. Little appeared before the Board in regard to an understanding in the matter of issuing bonds.

Comm. Simons reported that he and Comm. Dahl had conferred with Mr. Frank Vogel, Manager of the Bank of North Dakota, in regard to the Bank acting as trustee in connection with bond issues, and that they had effected an agreement with Mr. Vogel, acting for the Bank, whereby the charge for such service would be the actual cost incurred by the bank in connection with the trusteeship. This should not be more than 1/10 of 1% of the amount of the bond issue. The Bank would take care of registration of bonds, and all the monies received by the Commission from districts would be deposited with the Bank of North Dakota and if bonds came due, the Bank would take care of the payment of same. Mr. J. A. Little, Attorney for the Bank of North Dakota, stated he thought 1/10 of 1% of the bond issue would cover the expense of the trusteeship. Attorney Cain suggested that the contract between the Bank and the Water Conservation Commission provide that the Water Conservation Commission shall be required to pay to the trustee its actual cost of acting in such capacity. The Commission in figuring its cost could then include in the cost of each particular project 1/10 of 1% to cover this. Said contract would be entered into with the Bank after all contracts are entered into between the districts and the Water Conservation Commission. Comm. Simons suggested that in issuing the bonds a reasonable amount of the cost involved be charged against the projects and that the Secretary take the matter up with Attorney J. P. Cain and follow his suggestions in regard to same.

Comm. Simons said that Mr. Vogel had stated the Bank would take \$16,000.00 in bonds to be issued by the Cartwright Project, the same to be included with individual projects up to \$50,000.00 and further that Mr. Vogel wanted to know the status of mortgage holders and land owners so that the mortgage holder could not foreclose after the work was done and the man on the land had spent time and labor building it up. This would require some sort of a waiver agreement from the mortgage holder. Attorney Little stated that Mr. Vogel wants to be sure that the present land owner gets the full benefit of the project and raised the question of whether assessments made by a district would hold priority over mortgages so that if the mortgage holder would foreclose, whether he could escape the payment of assessments. Attorney Cain stated that he believed the assessments would hold priority over the rights of a mortgage, provided the assessments were properly levied, and Attorney Acker confirmed this opinion. The Commissioners referred the matter to Attorney J. P. Cain and suggested that he take the matter up with the Attorney General.

Moved by Comm. Dahl, seconded by Comm. Simons, that the following resolution be adopted:

RESOLUTION

WHEREAS, the State Water Conservation Commission has undertaken the construction of several water conservation projects and irrigation projects which when completed will be sold and transferred to the irrigation district in which such project or projects are situated or will be sold and transferred to the corporation or association established to operate and maintain such project or projects or will be sold and transferred to the individuals for whom such project is or has been constructed; and

WHEREAS, it is necessary that the Commission obtain from such irrigation district, corporation, association or individual person, as the case may be, a contract or agreement in writing setting forth the terms, conditions and limitations under which the Commission will undertake to construct such project and setting forth the obligations, methods of payment and security which such irrigation district, corporation, association, or individual person, undertakes to make, furnish and deliver to the Commission.

NOW THEREFORE, BE IT RESOLVED:

1. That the Chairman and the Secretary are hereby authorized and directed to obtain from every irrigation district in which the Commission has agreed to construct an irrigation system an agreement in writing to the effect that the district will call an election of the electors for the purpose of voting upon the question of issuing district bonds to cover the cost of constructing and equipping an irrigation project therein; that the district will operate and maintain such irrigation project after its completion and will levy and collect rentals for supplying water, that the district will levy assessments against lands benefited to cover such construction costs or to cover the amounts needed to pay the interest on bonds as they mature and that the district will pledge and hypothecate to the Commission earnings from the project to secure payment of costs incurred by the Commission, and that the district will make, furnish and deliver such evidence of its indebtedness to the Commission and such security therefore as the Commission, its agents or representatives may deem necessary.

2. That the Chairman and the Secretary of the Commission be, and they are hereby authorized and directed to enter into agreements with corporations, associations and individuals for the construction of irrigation projects and water conservation projects and such agreements shall set forth as fully as may be the obligations of such corporations, associations and individuals to operate and maintain the project or projects constructed by the Commission, and to pay for same, and that such corporation, associations or individual will make, furnish and deliver to the Commission such evidence of its or his indebtedness to the Commission and such security and securing instruments therefore and thereunder as the Commission, its agents or representatives, shall require.

The Secretary called the roll and the motion carried, all Commissioners voting aye.

RESOLUTION

WHEREAS, the State Water Conservation Commission has undertaken the construction of various irrigation projects complete with ditches, pumps, and other necessary equipment, including land for pump house sites, right-of-way for flumes and ditches, etc. and

WHEREAS, in order to provide funds for the construction of such irrigation projects, it is necessary that the Commission issue and sell its State Water Conservation Commission Revenue Bonds, and

WHEREAS, it is desirable that such bonds be secured by a trust indenture by and between the Commission and a corporate trustee in accordance with the provisions of Section 23 of Chapter 255

of the Session Laws of North Dakota for the year 1937.

THEREFORE BE IT RESOLVED:

That the Chairman and Secretary of the Commission be, and they are hereby authorized and directed on behalf of the Commission to enter into a trust indenture with the Bank of North Dakota containing such provisions for protecting and enforcing the rights and remedies of bonds holders as are ordinarily set forth in trust indentures.

The roll was called and the motion carried, all Commissioners voting aye.

Moved by Comm. Simons, seconded by Comm. Dahl, that the resolution dated January 13, 1938 authorizing the issuance of water conservation bonds in the sum of \$50,000 be vacated, annulled and set aside. The roll was called and the motion carried, all Commissioners voting aye.

Moved by Comm. Dahl, seconded by Comm. Simons, that the Secretary be authorized to issue a bond prospectus, to print bond forms, bond subscription blanks, receipt blanks, and other necessary supplies needed in connection with bond issuance. The roll was called and the motion carried, all Commissioners voting aye.

Moved by Comm. Whitney, seconded by Comm. Simons, that the following motion be adopted:

RESOLUTION

WHEREAS, the State Water Conservation Commission has authorized and directed the issuance and sale of its Revenue Bonds to provide funds for the financing, construction, equipment and completion of various water conservation projects and irrigation projects, and

WHEREAS, the Commission has determined to offer for sale, and from time to time as funds are needed, to sell for cash its revenue bonds of several series, at not less than the par value thereof, to the highest and best bidder or bidders after ten days notice of each such sale has been given by one publication thereof in a newspaper of general circulation in Burleigh County, North Dakota.

NOWHEREFORE, BE IT RESOLVED: That before any such bonds are sold, and before any bids are received and accepted for the purchase thereof, the Secretary of the Commission shall, and he is hereby authorized and directed, to give public notice of such sale by publication thereof in a newspaper of general circulation in Burleigh County, North Dakota, at least ten days prior to the date of sale; that the form of such notice of sale shall be determined by the Secretary but shall state: (1). The aggregate amount of bonds to be sold; (2). The denominations, rate of interest and maturity of such bonds; (3). That such bonds will be negotiable and that title thereto will pass by delivery unless registered in the name of the holder thereof; (4). That sealed bids will be received in the office of the State Water Conservation Commission up to and until twelve o'clock noon on the date of sale, and (5). That bids will be publicly opened on that date at two o'clock in the afternoon thereof.

BE IT FURTHER RESOLVED: That such bonds shall not be sold for a less amount than the par value thereof and that such bonds shall be sold for cash to the highest and best bidder or bidders.

On roll call the motion carried, all Commissioners voting aye.

Moved by Comm. Simons, seconded by Comm. Olson, that the Commission adopt the following resolution:

R E S O L U T I O N

Resolution authorizing the issuance of State Water Conservation Commission Revenue Bonds for the establishment, construction and completion of an irrigation system for the Lewis and Clark Irrigation District of McKenzie County, North Dakota.

1. WHEREAS, by virtue of Chapter 255 of the Session Laws of the State of North Dakota for 1937, the State Water Conservation Commission as an agency of the State, hereinafter called the Commission, is authorized and empowered to plan, undertake, construct, establish, maintain, control and supervise all works, dams and projects, public and private which in its judgment may be necessary or advisable for the purpose of water conservation and irrigation and to acquire all property necessary therefore and to fix rates, establish charges, levy and collect rents, premiums and other revenues from the use and sale of water from all projects under its supervision and control, and
2. WHEREAS, the Commission has undertaken the construction, equipment and completion of an irrigation project in the Lewis and Clark District of McKenzie County, North Dakota, at an estimated cost of one hundred fifty thousand dollars (\$150,000.00), (which sum is in addition to money, labor and materials granted and contributed by the United States Government) which project, when completed, will be sold and transferred to the said Lewis and Clark Irrigation District, and
3. WHEREAS, it is necessary to provide funds for the construction of the project and for the payment of all expenses preliminary or incident thereto by the issuance and sale of State Water Conservation Commission Revenue Bonds, the principal of and interest on which bonds shall be paid solely from revenues derived by said Irrigation District from assessments against lands benefited and from the operation and maintenance of the irrigation system established and created by the Commission and for which the state shall incur no debt, liability or obligation of any kind or nature within the meaning of any constitutional provision or limitation, and to support which the State of North Dakota shall not pledge its credit, and
4. WHEREAS, the Commission has duly determined to authorize the issuance of State Water Conservation Commission Revenue Bonds in the said aggregate principal amount of one hundred fifty thousand dollars (\$150,000.00), (except for bonds issued in substitution for bonds lost, stolen or destroyed) to be designated as "State Water Conservation Commission Revenue Bonds, Series A", all of said bonds to be equally and ratably secured by an equal amount of bonds of the Lewis and Clark Irrigation District and/or by agreement of the district pledging its revenues for the payment of the cost of constructing and equipping the irrigation works therein and by any contracts, agreements and mortgages delivered to the Commission by the said Irrigation District.

NOW THEREFORE, BE IT RESOLVED:

That State Water Conservation Commission Revenue Bonds, Series A, shall be issued in the aggregate principal amount of one hundred and fifty thousand dollars (\$150,000.00), (except for bonds issued in substitution for bonds lost, stolen or destroyed), shall be issued from time to time as funds may be required for the construction of said project and shall be dated as of the time of issuance and shall be issued in the following denominations, to-wit:

- \$5,000.00 of said issue to be in bonds of the denominations of \$ 5.00 each
- \$5,000.00 of said issue to be in bonds of the denominations of \$10.00 each
- \$5,000.00 of said issue to be in bonds of the denominations of \$25.00 each
- \$5,000.00 of said issue to be in bonds of the denominations of \$50.00 each
- \$5,000.00 of said issue to be in bonds of the denominations of \$100.00 each

Each of the bonds in the denominations of \$5.00, \$10.00, \$25.00, \$50.00 and \$100.00 shall

be due and payable, principal and accrued interest thereon, on or before eleven years from thereof. The remainder of the issue of Series A. Revenue Bonds in the amount of \$125,000.00 to be in the denominations of \$1,000.00 each and shall be due and payable, principal and accrued interest thereon, on or before thirty years on the date thereof. Each of the Series A Revenue Bonds shall be numbered consecutively beginning with Bond No. 1 and shall bear interest at the rate of three per cent (3%) per annum; provided, however, that accrued interest up to and including December 31, 1940, shall be payable on or before January 1st, 1941. That such revenue bonds shall be callable, in whole or in part, at the option of the State Water Conservation Commission on any interest paying date upon at least thirty days prior notice which shall be given by one publication in a newspaper of general circulation in McKenzie and Burleigh Counties, North Dakota, and such bonds shall be redeemable by payment of the par value thereof together with the accrued interest due thereon to date of redemption and that such bonds shall be substantially in the following form, to-wit:

\$ _____

No. _____

STATE OF NORTH DAKOTA

STATE WATER CONSERVATION COMMISSION REVENUE BOND

Series A.

The State Water Conservation Commission, a body corporate, created and organized and existing under and by virtue of Chapter 255 of the Session Laws of North Dakota for the year 1937, for value received, hereby undertakes and promises to pay from the special fund herein mentioned to the bearer hereof, or if this bond be registered, to the registered owner hereof, on or before _____ years from the date of this bond, the principal sum of _____ dollars (\$ _____) and accrued interest thereon from the date hereof at the rate of three per cent (3%) per annum. Principal and interest on this bond shall be payable at the office of the Bank of North Dakota, in any coin or currency of the United States of America, which on the date of payment of principal and interest on this bond is legal tender for the payment of public and private debts.

This bond is one of a duly authorized issue of bonds known as the State Water Conservation Commission Revenue Bonds, Series A, limited in the aggregate principal amount to one hundred fifty thousand dollars (\$150,000.00) (except for bonds issued in substitution for bonds lost, stolen or destroyed, all of like tenure. Said bonds are issued to provide funds for the payment of the cost of constructing a pumping plant and system of irrigation for and within the Lewis and Clark Irrigation District of McKenzie County, North Dakota, and not otherwise.

The principal and interest of this bond will be payable from a special fund created by payments to the State Water Conservation Commission by the Lewis and Clark Irrigation District of McKenzie County, North Dakota, from revenues derived by said Irrigation District from the sale of water for irrigation and by assessments against the lands of said irrigation district benefited by the construction of such system of irrigation. This bond will be secured by bonds of the Lewis and Clark Irrigation District, issued by the said district to cover the cost of construction of such irrigation system, and/or by agreement of the district pledging its revenues derived from the operation of such irrigation system and from assessments levied against lands benefited thereby.

The State Water Conservation Commission covenants that the revenues derived from the Lewis and Clark Irrigation District will be deposited in the Bank of North Dakota in a fund known as the Revenue Bond Payment Fund, Series A, and that bonds of the Lewis and Clark Irrigation District issued to the State Water Conservation Commission in payment of the cost of constructing the said irrigation system will be irrevocably pledged to the Bank of North Dakota under a trust agreement whereby said bank will hold said Lewis and Clark Irrigation Bonds in the

aggregate amount of one hundred fifty thousand dollars (\$150,000.00) in trust for the owners of State Water Conservation Commission Revenue Bonds, Series A, will collect the principal of, and interest on, such Irrigation District bonds and will deposit the proceeds to the credit of the said Revenue Bond Payment Fund, Series A.

The State Water Conservation Commission reserves, and shall have, the right to redeem this bond on any interest paying date upon at least (30) thirty days prior notice by publication once in a newspaper of general circulation in Burleigh and McKenzie Counties, North Dakota, by the payment of the par value thereof and accrued interest thereon to the date of redemption. If this called for redemption, this bond shall cease to bear interest after the date of redemption.

This bond shall be deemed to be a negotiable instrument under the laws of the State of North Dakota, as declared by Chapter 255, Session Laws of 1937, and is issued with the intent that the laws of said state shall govern the construction thereof. The title to this bond shall pass by delivery except when registered in the manner required by the resolution authorizing the issuance thereof. After such registration, no transfer hereof shall be valid unless made at the office of the Secretary of the State Water Conservation Commission by the registered holder hereof, in person or by attorney duly authorized in writing.

This bond is issued and delivered under and by virtue of, and in full and strict compliance with, Chapter 255 of the Session Laws of North Dakota for 1937. And the State Water Conservation Commission of the State of North Dakota hereby certifies and declares that all acts, conditions and things required to be done, happen and exist precedent to, and in the issuance of this bond, have been done and happened, and do exist, and have been performed in accordance with law.

In Witness Whereof, the State Water Conservation Commission of North Dakota, has caused this bond to be signed by the Governor of the State of North Dakota, as its Ex Officio Chairman and the seal of the State Water Conservation Commission is hereunto affixed, all duly attested to by the Secretary of the Commission.

Dated this _____ day of _____, 1938, at Bismarck, North Dakota.

Governor of the State of North Dakota
as Ex Officio Chairman of the State
Water Conservation Commission.

ATTEST _____
Secretary of the State Water Conserva-
tion Commission of North Dakota

BE IT FURTHER RESOLVED:

That the interest coupons to be attached to said bonds shall be in the following form, to-wit:

Interest Coupon

On the first day of _____, 19_____, unless the bond to which this coupon is attached shall have been called for redemption as provided therein, the State Water Conservation Commission of the State of North Dakota will pay to the bearer at the office of the Bank of North Dakota in the City of Bismarck, North Dakota, the sum of \$ _____ in any coin or currency of the United States of America which on said date of payment is legal tender for the payment of public and private debts, solely from the Series A Revenue

Bonds Payment Fund in payment of the annual interest due at date hereof, upon its State Water Conservation Commission Revenue Bond, Series "A", dated this _____ day of _____, 1938.

Governor of the State of North Dakota As Ex Officio Chairman of the State Water Conservation Commission.

ATTEST:

Secretary of the State Water Conservation Commission.

Corporate Seal.

BE IT FURTHER RESOLVED:

That provision be made for the registration of the bonds herein mentioned (State Water Conservation Commission Revenue Bonds, Series A) in the name of the owner as to the principal thereof and that such certificate of registration shall be in substantially the following form, to-wit:

The within bond is registered on the books of the State Water Conservation Commission at the office of its Secretary, in the State Capitol Building in the City of Bismarck, North Dakota in the name of the last owner below written, and the principal of this bond shall be payable only to or upon the written order of such registered owner.

<u>Date of Registration.</u>	<u>Name of Owner.</u>	<u>Signature of Bond Registrar.</u>
_____	_____	_____

The roll was called and the motion carried, all Commissioners voting aye.

It was moved by Comm. Engen, seconded by Comm. Olson, that the following resolution be adopted:

R E S O L U T I O N

Resolution authorizing the issuance of State Water Conservation Commission Revenue Bonds for the financing of and/or the establishment, construction and completion of irrigation systems and works and projects in the several counties of the State of North Dakota

1. WHEREAS, by virtue of Chapter 255 of the session Laws of the State of North Dakota for 1937, the State Water Conservation Commission as an agency of the State, hereinafter called the Commission, is authorized and empowered to plan, undertake, construct, establish maintain, finance, control and supervise all works, dams and projects, public and private which in its judgment may be necessary or advisable for the purpose of water conservation and irrigation and to acquire all property necessary therefore and to fix rates, establish charges, levy and collect rents, premiums and other revenues from the use and sale of water from all projects under its supervision and control, and

2. WHEREAS, the Commission has undertaken the financing of, and/or the construction, equipment and completion of the several irrigation projects designated as follows, to-wit:

The Cartwright Irrigation project, located within the boundaries of the Cartwright irrigation District of McKenzie County, North Dakota, at an estimated cost of Sixteen Thousand (\$16,000.00) dollars.

The R. H. LeRoy Irrigation Project, located on Lot B, Section Thirty (30), Township One Hundred Forty-nine (149) North, Range Eighty (80) West, Morton County, North Dakota, at a cost of Four Hundred Forty-five (\$445.00) dollars.

The John Mercer Irrigation project, located on Lots five and six, of Section Seventeen (17) and Lots one and four, of Section Sixteen (16), Township One Hundred Fifty-Two (152) North, Range One Hundred Three (103) West, Williams County, North Dakota, at a cost of Two Hundred Sixty-three dollars and Thirty-two cents (\$263.32).

The F. M. Shotswell Irrigation Project, located on the West half of the Northeast Quarter ($\frac{1}{2}$ NE $\frac{1}{4}$), and Lots two and three, Section Twenty-eight (28); Township One Hundred Fifty-Two (152) North, Range One Hundred Four (104) West, Williams County, North Dakota, at a cost of One Hundred Eighty-eight dollars and Sixty-seven cents (\$188.67).

The Rix Irrigation Project, located on the Northeast Quarter (NE $\frac{1}{4}$), Section Twenty-five (25), Township One Hundred Thirty-eight (138) North, Range Eighty-one (81) West, Morton County, North Dakota, at a cost of Seven Hundred (\$700.00) dollars.

The Millhouse Irrigation Project, located on the Northwest Quarter (NW $\frac{1}{4}$) of Section Twenty-two (22), Township One Hundred Fifty-two (152) North, Range One Hundred Three (103) West, McKenzie County, North Dakota, at a cost of Seven Hundred Eighty-eight dollars and Fifty-one cents, (\$788.51).

The R. S. Williamson Irrigation Project, located on the Northwest Quarter of the Northeast Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$), Section Thirty (30), Township One Hundred Fifty-two (152) North, Range One Hundred Three (103) West, Williams County, North Dakota, at a cost of Three Hundred Fifty-five dollars and Twenty-three cents (\$355.23), and

The Gudbranson Irrigation Project, located near Carlson in McKenzie County, North Dakota, at a cost of Four Hundred Sixty - four dollars and Five cents (\$464.05) and

3. WHEREAS, the Commission intends to finance and/or to construct, equip and complete divers other small irrigation projects in the several counties of the State at an estimated cost of Thirty Thousand (\$30,000.00) dollars, (which sum is in addition to money, labor and materials granted and contributed by the United States Government) which projects, systems or works when completed, will be sold and transferred to said Districts, individuals or corporations, as the case may be, and

4. WHEREAS, it is necessary to provide funds for the financing of and/or the construction of the projects aforesaid, and for the payment of all expenses preliminary or incident thereto by the issuance and sale of State Water Conservation Commission Revenue Bonds, the principal of and interest on which bonds shall be paid solely from revenues derived from said irrigation districts from assessments against lands benefited and from the income, rent, profit and revenue of such districts, works, systems or projects, and monies received from the sale or use of water or other services and from the operation and maintenance of the irrigation systems and/or projects established and created by the Commission for which the state shall incur no debt, liability or obligation of any kind or nature within the meaning of any constitutional provision or limitation, and to support which the State of North Dakota will not pledge its credit, and

5. WHEREAS, the Commission has duly determined to authorize the issuance of State Water Conservation Commission Revenue Bonds in the aggregate principal amount of fifty thousand (\$50,000.00) dollars, (except for bonds issued in substitution for bonds lost, stolen or destroyed) to be designated as "State Water Conservation Revenue Bonds, Series B" all of said bonds to be equally and ratably secured in part by irrigation district bonds of the Cartwright Irrigation District of McKenzie County, North Dakota; in part by real estate mortgages, and/or notes and contracts, executed and delivered to the Commission by irriga-

tion districts, corporations, co-partnerships or individuals, for whom projects have been or are to be constructed, and/or financed, and/or by agreement of the districts, corporations, or individuals pledging its or their revenue, rents, profit and income for the payment of the cost of constructing and equipping such works or projects, and/or the financing of the same.

NOW THEREFORE, BE IT RESOLVED:

That State Water Conservation Commission Revenue Bonds, Series B, shall be issued in the aggregate principal amount of fifty thousand (\$50,000.00) dollars (except for bonds issued in substitution for bonds lost, stolen or destroyed), shall be issued from time to time as funds may be required for the financing of and/or the construction of said projects, works or systems, and shall be dated as of the time of issuance and shall be issued in denominations of one thousand (\$1,000.00) dollars each, and shall be due and payable, principal and accrued interest thereon, on or before thirty (30) years from the date thereof. Each of the Series B Revenue Bonds shall be numbered consecutively beginning with Bond No. 1 and shall bear interest at the rate of three per cent (3%) per annum, provided, however, that accrued interest up to and including December 31, 1940 shall be payable on or before January 1, 1941. That such revenue bonds shall be callable, in whole or in part, at the option of the State Water Conservation Commission on any interest paying date upon at least thirty (30) days prior notice which shall be given by one publication in a newspaper of general circulation in Burleigh County, North Dakota, and in a newspaper of general circulation in either the Counties of Morton, McKenzie or Williams, and such bonds shall be redeemable by payment of the par value thereof together with accrued interest due thereon to the date of redemption, and such bonds shall be substantially in the following form, to-wit:

\$ _____ No. _____

STATE OF NORTH DAKOTA

STATE WATER CONSERVATION COMMISSION REVENUE BONDS

Series B

The State Water Conservation Commission, a body corporate, created, organized and existing under and by virtue of Chapter 255 of the Session Laws of North Dakota for the year 1937, for value received, hereby undertakes and promises to pay from the special fund herein mentioned to the bearer hereof, or if this bond be registered, to the registered owner hereof, on or before thirty (30) years from the date of this bond, the principal sum of one thousand dollars (\$1,000.00), and accrued interest thereon from the date hereof at the rate of three per cent (3%) per annum. Principal and interest on this bond shall be payable at the office of the Bank of North Dakota, in any coin or currency of the United States of America, which on the date of payment of principal and interest on this bond is legal tender for the payment of public and private debts.

This bond is one of a duly authorized issue of bonds known as the State Water Conservation Commission Revenue Bonds, Series B., limited in the aggregate principal amount of fifty thousand dollars (\$50,000.00), (except for bonds issued in substitution for bonds lost, stolen or destroyed), all of like tenure. Said bonds are issued to provide funds for financing payment of and/or the cost of constructing pumping plants, works and systems of irrigation for and within the State of North Dakota and not otherwise.

The principal and interest of this bond will be payable from a special fund created by payments to the State Water Conservation Commission by the irrigation districts, irrigation projects, works, or systems of individuals, corporations or districts within the State of North Dakota, from revenues derived by said irrigation systems, works, projects or districts, from the sale of water for irrigation and by assessments against the lands of said irrigation districts benefited by the construction of such system of irrigation. This bond will be

secured in part by bonds of the Cartwright Irrigation District, and in part by real estate mortgages and/or notes or contracts, executed and delivered to the Commission by irrigation districts and/or individuals or corporations for whom projects have been or are to be constructed and/or financed, and by agreement of districts the individuals or corporations pledging its or their revenue derived from the operation of said system and works or projects and from assessments levied against the lands benefited thereby.

The State Water Conservation Commission covenants that the revenues derived from the Cartwright Irrigation District and other irrigation projects, works and systems will be deposited in the Bank of North Dakota, in a fund known as the Revenue Bond Payment Fund, Series B, and that bonds of the Cartwright Irrigation District issued to the State Water Conservation Commission in payment of the cost of constructing the said irrigation system for said district will be irrevocably pledged to the Bank of North Dakota under a trust agreement whereby said bank will hold said Cartwright Irrigation District Bonds in the aggregate amount of sixteen thousand (\$16,000.00) dollars in trust for the owners of State Water Conservation Commission Revenue Bonds, Series B, will collect the principal of, and interest on, such Irrigation District bonds and will deposit the proceeds to the credit of the said Revenue Bond Payment Fund, Series B, together with the mortgages, notes and contracts pledged to the Commission by individuals and corporations for whom irrigation projects have been or will be constructed or financed.

The State Water Conservation Commission reserves, and shall have, the right to redeem this bond on any interest paying date upon at least thirty (30) days prior notice by publication once in a newspaper of general circulation in either of the counties of Morton, McKenzie or Williams, by the payment of the par value thereof and accrued interest thereon to the date of redemption. If this called for redemption, this bond shall cease to bear interest after the date of redemption.

This bond shall be deemed to be a negotiable instrument under the laws of the State of North Dakota, as declared by Chapter 255, Session Laws of 1937, and is issued with the intent that the laws of said state shall govern the construction thereof. The title to this bond shall pass by delivery except when registered in the manner required by the resolution authorizing the issuance thereof. After such registration, no transfer hereof shall be valid unless made at the office of the Secretary of the State Water Conservation Commission by the registered holder hereof, in person or by attorney duly authorized in writing.

This bond is issued and delivered under and by virtue of, and in full and strict compliance with, Chapter 255 of the Session Laws of North Dakota for 1937. And the State Water Conservation Commission of the State of North Dakota hereby certifies and declares that all acts, conditions and things required to be done, happened and exist precedent to, and in the issuance of this bond, have been done and happened, and do exist, and have been performed in accordance with law.

In Witness Whereof, the State Water Conservation Commission of North Dakota has caused this bond to be signed by the Governor of the State of North Dakota, as its Ex Officio Chairman and the seal of the State Water Conservation Commission to be hereunto affixed, all duly attested to by the Secretary of the Commission.

Dated this _____ day of _____, 1938, at Bismarck, North Dakota

Governor of the State of North Dakota as Ex
Officio Chairman of the State Water Conserva-
tion Commission.

ATTEST

Secretary of the State Water Conserva-
tion Commission of North Dakota

BE IT FURTHER RESOLVED:

That the interest coupons to be attached to said bonds shall be in the following form, to-wit:

Interest Coupon.

On the first day of _____, 19_____, unless the bond to which this coupon is attached shall have been called for the redemption as provided therein, the State Water Conservation Commission of the State of North Dakota will pay to the bearer at the office of the Bank of North Dakota in the City of Bismarck, North Dakota, the sum of \$ _____ in any coin or currency of the United States of America which on said date of payment is legal tender for the payment of public and private debts, solely from the Series B Revenue Bonds Payment Fund in payment of the annual interest due at date hereof, upon its State Water Conservation Revenue Bond, Series "B", dated this _____ day of _____, 1938.

ATTEST:

Governor of the State of North Dakota as Ex Officio
Chairman of the State Water Conservation Commission

Secretary of the State Water Conservation
Commission.

(Corporate Seal.)

BE IT FURTHER RESOLVED:

That provision be made for the registration of the bonds herein mentioned (State Water Conservation Commission Revenue Bonds, Series B) in the name of the owner as to the principal thereof and that such certificate of registration shall be in substantially the following form, to-wit:

The within bond is registered on the books of the State Water Conservation Commission at the office of its secretary, in the State Capitol Building in the City of Bismarck, North Dakota, in the name of the last owner written below, and the principal of this bond shall be payable only to or upon the written order of such registered owner.

<u>Date of Registration.</u>	<u>Name of Owner</u>	<u>Signature of Bond Registrar</u>
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On roll call the motion carried, all Commissioners voting aye.

Moved by Comm. Engen, seconded by Comm. Olson, that the following resolution be adopted:

R E S O L U T I O N

Resolution authorizing the issuance of State Water Conservation Commission Revenue Bonds for the financing of and/or the establishment, construction and completion of the Grantier Irrigation system and/or project in McKenzie County, North Dakota.

1. WHEREAS, by virtue of Chapter 255 of the session Laws of the State of North Dakota for 1937, the State Water Conservation Commission as an agency of the State, hereinafter called the Commission, is authorized and empowered to plan, undertake, construct, establish maintain, finance, control and supervise all works, dams and projects, public and private

which in its judgment may be necessary or advisable for the purpose of water conservation and irrigation and to acquire all property necessary therefore and to fix rates, establish charges, levy and collect rents, premiums and other revenues from the use and sale of water from all projects under its supervision and control, and

2. WHEREAS, the Commission has undertaken the financing of, and/or the construction, equipment and completion of the Grantier Irrigation System and/or project of McKenzie County, North Dakota, on the land described as follows, to-wit:

38 acres of Lot 7, 8 & 10, Section 6; SE $\frac{1}{4}$ of SW $\frac{1}{4}$, NE $\frac{1}{4}$ of SW $\frac{1}{4}$, N $\frac{1}{2}$ of NW $\frac{1}{4}$, Lot 11, W $\frac{1}{2}$ of SW $\frac{1}{4}$, SW $\frac{1}{4}$ of NW $\frac{1}{4}$, SW $\frac{1}{4}$ of SE $\frac{1}{4}$, Section 5, Lot 9, E $\frac{1}{2}$ of SE $\frac{1}{4}$ of Section 6; NE $\frac{1}{4}$ of SE $\frac{1}{4}$, E $\frac{1}{2}$ of NE $\frac{1}{4}$, SE $\frac{1}{4}$ of SE $\frac{1}{4}$, E $\frac{1}{2}$ of NW $\frac{1}{4}$, W $\frac{1}{2}$ of NE $\frac{1}{4}$ of Section 7; N $\frac{1}{2}$ of NW $\frac{1}{4}$, SW $\frac{1}{4}$ of NW $\frac{1}{4}$, S $\frac{1}{2}$ of SE $\frac{1}{4}$, NW $\frac{1}{4}$ of SE $\frac{1}{4}$, NE $\frac{1}{4}$ of SW $\frac{1}{4}$, SE $\frac{1}{4}$ of NW $\frac{1}{4}$, W $\frac{1}{2}$ of SW $\frac{1}{4}$, SE $\frac{1}{4}$ of SW $\frac{1}{4}$, NE $\frac{1}{4}$ of SE $\frac{1}{4}$, NE $\frac{1}{4}$ of Section 8; NE $\frac{1}{4}$ of NW $\frac{1}{4}$, W $\frac{1}{2}$ of NW $\frac{1}{4}$, SE $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 9, N $\frac{1}{2}$ of NE $\frac{1}{4}$, NW $\frac{1}{4}$ of NW $\frac{1}{4}$, NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 17, N $\frac{1}{2}$ of NE $\frac{1}{4}$, NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 18; all in Township 152 North, Range 97 West, McKenzie County, North Dakota, at an estimated cost of two thousand (\$2,000.00) dollars, and

3. WHEREAS, it is necessary to provide funds for the financing of and/or the construction of the projects aforesaid, and for the payment of all expenses preliminary or incident thereto by the issuance and sale of State Water Conservation Commission Revenue Bonds, the principal of and interest on which bonds shall be paid solely from revenues derived from said irrigation district from the income, rent, profit and revenue of such district, system or project, or other services from the operation and maintenance of the irrigation system and/or project established and created by the Commission for which the state shall incur no debt, liability or obligation of any kind or nature within the meaning of any constitutional provision or limitation, and to support which the State of North Dakota will not pledge its credit, and

4. WHEREAS, the Commission has duly determined to authorize the issuance of State Water Conservation Commission Revenue Bonds in the aggregate principal amount of two thousand (\$2,000.00) dollars, (except for bonds issued in substitution for bonds lost, stolen or destroyed) to be designated as "State Water Conservation Revenue Bonds, Series C" all of said bonds to be equally and ratably secured by a mortgage on the real estate in the said district, a note and contract, executed and delivered to the Commission by Jay Grantier, Clara F. Grantier, L. D. Grantier, and L. J. Grantier, pledging the properties of the system or project for the payment of the cost of constructing and equipping said irrigation system or project

NOW THEREFORE, BE IT RESOLVED:

That the State Water Conservation Commission Revenue Bonds, Series C, shall be issued in the aggregate principal amount of two thousand (\$2,000.00) dollars (except for bonds issued in substitution for bonds lost, stolen or destroyed, shall be issued from time to time as funds may be required for the financing of and/or the construction of said project, and shall be dated May 1st, 1938, and shall be issued in denominations of one thousand (\$1,000.00) dollars each, and shall be due and payable, principal and accrued interest thereon, on or before ten (10) years from the date thereof. Each of the Series C Revenue Bonds shall be numbered consecutively beginning with Bond No. 1 and shall bear interest at the rate of three per cent (3%) per annum. That such revenue bonds shall be callable, in whole or in part, at the option of the State Water Conservation Commission on any interest paying date upon at least thirty (30) days prior notice which shall be given by one publication in a newspaper of general circulation in Burleigh County, North Dakota, and in a newspaper of general circulation in the County of McKenzie, North Dakota, and such bonds shall be redeemable by payment of the par value thereof together with

accrued interest due thereon to the date of redemption, and such bonds shall be substantially in the following form, to-wit:

\$ _____

No. _____

STATE OF NORTH DAKOTA

STATE WATER CONSERVATION COMMISSION REVENUE BOND

Series C.

The State Water Conservation Commission, a body corporate, created, organized and existing under and by virtue of Chapter 255 of the Session Laws of North Dakota for the year 1937, for value received, hereby undertakes and promises to pay from the special fund herein mentioned to the bearer hereof, or if this bond be registered, to the registered owner hereof, on or before ten (10) years from the date of this bond, the principal sum of one thousand dollars (\$1,000.00), and accrued interest thereon from the date hereof at the rate of three per cent (3%) per annum. Principal and interest on this bond shall be payable at the office of the Bank of North Dakota, in any coin or currency of the United States of America, which on the date of payment of principal and interest on this bond is legal tender for the payment of public and private debts.

This bond is one of a duly authorized issue of bonds known as State Water Conservation Commission Revenue Bonds, Series C, limited in the aggregate principal amount of two thousand dollars (\$2,000.00) (except for bonds issued in substitution for bonds lost, stolen or destroyed), all of like tenure. Said bonds are issued to provide funds for financing the payment of and/or the cost of constructing a pumping plant project or system or irrigation known as the Grantier irrigation system or project of McKenzie County, North Dakota and not otherwise.

The principal and interest of this bond will be payable from a special fund created by payments to the State Water Conservation Commission by Jay Grantier, Clara F. Grantier, L. D. Grantier, and L. J. Grantier, the owners of the Grantier irrigation system or project. This bond will be secured by a real estate mortgage, note and contract, executed and delivered to the Commission by Jay Grantier, Clara F. Grantier, L. D. Grantier, and L. J. Grantier, pledging the system or project and the real estate on which the same is located as security to the Commission.

The State Water Conservation Commission covenants that the revenues derived from the Grantier irrigation project or system will be deposited in the Bank of North Dakota, in a fund known as the Revenue Bond Payment Fund, Series C, and that the mortgage, note and contract of the Grantier irrigation project or system will be irrevocably pledged to the Bank of North Dakota under a trust agreement whereby said bank will hold said mortgage, note and contract in trust for the owners of the State Water Conservation Commission Revenue Bonds, Series C, and will deposit the proceeds to the credit of the said Revenue Bond Payment Fund, Series C.

The State Water Conservation Commission reserves, and shall have, the right to redeem this bond on any interest paying date upon at least ten (10) days prior notice by publication once in a newspaper of general circulation in the County of McKenzie, by the payment of the par value thereof and accrued interest thereon to the date of redemption. If thus called for redemption, this bond shall cease to bear interest after date of redemption.

This bond shall be deemed to be a negotiable instrument under the laws of the State of North Dakota, as declared by Chapter 255, Session Laws of 1937, and is issued with the intent that the laws of said state shall govern the construction thereof. The title to this bond shall pass by delivery except when registered in the manner required by the resolution

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authorizing the issuance thereof. After such registration no transfer hereof shall be valid unless made at the office of the Secretary of the State Water Conservation Commission by the registered holder hereof, in person or by attorney duly authorized in writing.

This bond is issued and delivered under and by virtue of, and in full and strict compliance with, Chapter 255 of the Session Laws of North Dakota for 1937. And the State Water Conservation Commission of the State of North Dakota hereby certifies and declares that all acts, conditions and things required to be done, happen and exist precedent to, and in the issuance of this bond, have been done and happened, and do exist, and have been performed in accordance with law.

In Witness Whereof, the State Water Conservation Commission of North Dakota has caused this bond to be signed by the Governor of the State of North Dakota, as its Ex Officio Chairman and the seal of the State Water Conservation Commission.

Dated this _____ day of _____, 1938, at Bismarck, North Dakota.

Governor of the State of North Dakota as Ex
Officio Chairman of the State Water Conserva-
tion Commission.

ATTEST

Secretary of the State Water Conservation
Commission of North Dakota.

BE IT FURTHER RESOLVED:

That the interest coupons to be attached to said bonds shall be in the following form, to-wit

Interest Coupon

On the first day of _____, 19____, unless the bond to which this coupon is attached shall have been called for redemption as provided therein, the State Water Conservation Commission of the State of North Dakota will pay to the bearer in the office of the Bank of North Dakota in the City of Bismarck, North Dakota, the sum of \$ _____ in any coin or currency of the United States of America which on said date of payment is legal tender for the payment of public and private debts, solely from the Series (Revenue Bond Payment Fund in payment of the annual interest due at date hereof, upon its State Water Conservation Revenue Bond, Series "C", dated this _____ day of _____, 1938.

ATTEST:

Governor of the State of North Dakota as Ex Officio
Chairman of the State Water Conservation Commission.

Secretary of the State Water Conservation
Commission.

(Corporate Seal)

BE IT FURTHER RESOLVED:

That provisions be made for the registration of the bonds herein mentioned (State Water Conservation Commission Revenue Bonds, Series C) in the name of the owner as to the principal thereof and that such certificate of registration shall be in substantially the following

form, to-wit:

The within bond is registered on the books of the State Water Conservation Commission at the office of its Secretary, in the State Capitol Building in the City of Bismarck, North Dakota, in the name of the last owner below written, and the principal of this bond shall be payable only to or upon the written order of such registered owner.

<u>Date of Registration.</u>	<u>Name of Owner</u>	<u>Signature of Bond Registrar</u>
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On roll call the motion carried, all Commissioners voting aye.

At 12 o'clock noon it was moved by Comm. Olson, seconded by Comm. Engen, that the Commission recess until 1:30 P. M. The motion carried, all Commissioners voting aye.

The meeting was called to order at 1:30 P. M., by Vice Chairman Henry Holt with Commissioners Holt, Engen, Olson, Simons, Whitney and Dahl present. Governor William Langer, Chairman, absent.

Mr. Floyd Jennings, Secretary of the State Planning Board appeared before the Board and introduced Mr. F. G. Black of Washington, D. C. of the Department of Land Economics of the Department of Agriculture. Mr. Jennings stated that various agencies in the State had received telegrams from Washington, D. C., asking for data and information which would be helpful in promoting a water utilization program for the northwestern states and particularly North Dakota with the general idea that relief monies could be used in developing resources and rehabilitation of needy people. Comm. Simons discussed the problems of North Dakota as a whole and particularly the western half of the state. He suggested that a plan of irrigation and the placing of families upon these irrigated plots be worked out. In answer to a question by Mr. Black on how such projects could be populated, he cited the plan to be used on the Lewis and Clark project whereby the Farm Security Administration is willing to assist by loaning maximum amounts of money to people who are to be put on the land. Mr. Black inquired how this would affect the dry land sections. Comm. Simons stated he believed the people on the irrigated districts would find it wiser to sell their feed to the dry land stock raisers than to try to keep such stock themselves. In reply to a suggestion that the government might purchase highland acreage to be leased for grazing, Mr. Black cited the enormous expense involved in this plan. Comm. Simons then outlined the plan tentatively suggested by the joint council of Stated and Federal agencies, whereby soil and water conservation districts would be created in each major watershed and to move CCC camps into these water sheds to serve as key labor units.

Comm. Holt read a letter from Mr. Oscar Becker, Water Consultant for the State Planning Board wherein he stated that he "thought it might be desirable to ask the War Department to prepare an estimate for the Bald Hill Reservoir for approximately 100,000 acre feet capacity, for comparative purposes," and that in his opinion, "The reservoir of 170,000 acre feet is much larger than deemed necessary to retain the flow during the years of average or near average runoff." Comm. Holt stated he felt it would be to the interests of all concerned if there were closer coordination between the two departments so that such conflict of plans would not occur.

Members of the Commission then explained to Mr. Black various phases of the State Water Conservation program.

Vice Chairman Holt expressed his views upon economic conditions of the State. He pointed to the ever increasing relief loads and the apparent congregation of unemployed people in the larger centers, which in the future will present a real problem to the people of the State. The only help available for these unemployed to date is either relief or that they are assigned to work on WPA projects. The present burden upon the State and the counties is nearly unbearable, he stated, and he could foresee that unless some constructive long-range planned program for the rehabilitation of these unfortunate people be put into effect, the Federal Govern-

ment would have to continue for years to come an ever increasing expenditure for relief assistance.

Mr. Holt suggested a plan for rehabilitation of these people along the following lines. First, he recommended a complete land classification and soil survey in those regions of the State where there was sufficient average rainfall and where land is of a character that would produce the type of crops that can easily be processed into manufactured products. He also recommended that for central and eastern North Dakota it was of the utmost importance that sufficient water be provided for the Sheyenne, James and Red rivers. He mentioned the plan of the State Water Conservation Commission in this respect and stated that the Missouri River Diversion Project would provide sufficient water for these areas.

The central and eastern sections of the State, he stated, would offer opportunities for community and cooperative farming districts where a planned program for rehabilitating the unemployed now congregated in our cities could be undertaken. He stated that in his opinion these unemployed should be given an opportunity to settle on farms of approximately 80 acres each and that there should be from 300 to 500 of these farms in each cooperative district. And that within these districts and as a part of this plan there should be erected a sugar beet factory, an alcohol extracting plant and one or more creameries. He further stated that through cooperative effort with competent agricultural advisors, the unemployed settling on these cooperative farms could be taught how to raise sugar beets, potatoes and to do other types of farming, and that in the winter months they could work in the factories processing the products raised on the farms. This would provide year around unemployment. The sections of the State which he referred to, he claimed to be ideally suited to these two particular types of crops.

He thought that some plan out to be promulgated whereby these people could be financed and where repayment of the indebtedness could be spread over a number of years, he suggested up to 40 years. He pointed out that through cooperative effort between the counties, State and Federal Government some plan of this nature could be effectuated. He further stated that private capital, in his opinion, would be interested in financing projects of this nature if the Federal Government would place an insurance policy on the loan similar to that which is offered under the Federal Housing Administration. He also stated that it would be very necessary that these people receive at least cost of production for the produce which they raise. If a plan of this kind could be put into effect in North Dakota, it would practically wipe out the unemployment problem and assure a much happier and better community life.

The Secretary read a letter from residents of McLean County to Governor William Langer requesting the building of two dams at points in that county, and also read his reply advising them that the Commission cannot build dams except as part of a revenue producing project

It was moved by Comm. Simons, seconded by Comm. Olson, that the petition be filed. The motion carried, all Commissioners voting aye.

The Secretary read a letter from Hon. L. B. Hanna addressed to Vice Chairman Henry Holt as follows:

February 24, 1938

Mr. Henry Holt,
Grand Forks, North Dakota

Dear Mr. Holt:

I am deeply interested, and have been for a number of years, in the so-called Missouri River Diversion Project, and am very strong in the belief that if this can be brought about that it will mean a great deal to a very large part of North Dakota.

It would put water again into the James River, it would restore the two greatest lakes we

have in the State, Devils Lake and Stump Lake, and many other smaller bodies of water. In addition it would put water in the Sheyenne River, and as you know, the Sheyenne enters the Red River just a little way north of Fargo. South of Fargo for five miles the Sheyenne and Red Rivers are only some five or six miles apart. The ground is level and it would be very easy to put a ditch across from the Sheyenne to the Red River, and this would insure adequate water supply for all time for the City of Fargo.

This is very essential to the growth of Fargo, and as the population of that City increases, the demand for water increases, and the present source of supply for water in the Red River is inadequate, but this Missouri River Diversion would care for Fargo, even though it should become several times the size that it is now. In addition, it would help the smaller towns north from Fargo on the Red River and it would also help the City of Grand Forks, and the towns north of Grand Forks into Canada.

I know of nothing that would do more good for a very large area of country than this Missouri River Diversion, and in the case of the James River, it would help not only the towns and cities on the James in North Dakota, but would help the city of Aberdeen and many other towns and cities in South Dakota.

I wish that the entire delegation in Congress, from North Dakota, would go behind this project and keep at it until it was put into force and effect.

It would also mean a great deal of labor in the building of dams, tunnels and ditches, and this would help a great many people who need the employment, and after the project was completed, the good that it would do would be not for this year alone, but for many, many years in the future.

If there is anything that I can do to help this project along, I shall be glad to cooperate with you and all others interested in this most worthy undertaking.

Very sincerely yours,
L. B. HANNA

LBH:AM

Moved by Comm. Simons, seconded by Comm. Engen, that Mr. Hanna's letter be included in the Missouri River Diversion file and that the Secretary make reply expressing the appreciation of the Commission and suggesting that he make his views known and use his influence in the City of Fargo by having his views publicized. The motion carried, all Commissioners voting aye.

Moved by Comm. Engen, seconded by Comm. Olson, that the Secretary be directed to convey the thanks of the Water Conservation Commission to Dr. Maysil Williams for her cooperation and assistance in assigning Mr. M. D. Hollis, State Sanitary Engineer, to certain work in which this Commission is interested. The motion carried, all Commissioners voting aye.

Moved by Comm. Whitney, seconded by Comm. Engen, that the Secretary be directed to write to the Governor and the Board of Administration thanking them for providing the Water Conservation Commission and its staff with better quarters on the Thirteenth Floor of the Capitol Building. The motion carried, all Commissioners voting aye.

Comm. Simons gave a report of the special Committee appointed at the last meeting of the Commission to which was referred the negotiations with the Bank of North Dakota and the duty of arranging the necessary work for issuing of bonds as follows:

"Chairman Dahl personally contacted Attorney J. P. Cain and authorized employment by Mr. Cain of Attorney W. A. Jacobson of Watford City, to work with Mr. Cain in checking the legal steps taken in organizing the Lewis and Clark Irrigation District, the understanding being that Mr. Jacobson is employed by Mr. Cain and one bill for attorney fees will be sub-

mitted to the Commission. Pursuant to the instruction of Chairman Dahl, Mr. Cain arranged with Mr. Jacobson, and a check was made of the legal proceedings leading up to the formation of the Lewis and Clark District. It was ascertained that before this Commission can issue its bonds it would be necessary for the Lewis and Clark Irrigation District to complete its organization by the election of officers and also for the Lewis and Clark Irrigation District to vote its bonds in the same amount as the Commission proposes to issue, which is \$150,000.00. Your Committee desires further to report that this election will be held on the 15th day of April and that upon approval by the residents of the Lewis and Clark Irrigation District, the Commission will then be in a position to go ahead and actually issue its bonds.

"With regard to the second phase of the assignment to this Special Committee, your Chairman begs leave to report that conferences were held with Mr. Vogel, Manager of the Bank of North Dakota, and there now rests in his hands complete data covering all of the small irrigation projects which have been completed, and on which the necessary mortgage security or notes have been obtained. It is assumed by your Committee that as soon as the necessary bonds can be issued, that the Bank of North Dakota will accept these obligations and turn over the money to the Commission.

"With regard to the Cartwright (Scrivner) irrigation project, your committee reports that Mr. Vogel asked for, and was given a prospectus covering what the Commission proposes to do on this project. After a conference, he agreed to accept the bonds on the Cartwright Project in the sum of \$16,000.00, providing, however, that the Commission furnish him with satisfactory information regarding any mortgage on the land to be benefited and an agreement from any lien holders not to disturb the occupancy of the proposed irrigators who are now on the land for the next five years.

"In discussing the bonds business of the Commission, Mr. Vogel was asked to have the Bank of North Dakota enter into an agreement to act as trustee for the bond holders and agreed to do so, the cost of same to the Commission to be the actual expenses incurred by the Bank in connection with this work. It was further agreed that the Bank of North Dakota in charging expenses would submit to the Commission a detailed account showing what the expenses were."

Moved by Comm. Simons, seconded by Comm. Whitney, that the report of the Special Committee be accepted. The motion carried, all Commissioners voting aye.

At 6 P. M. it was moved by Comm. Simons, seconded by Comm. Dahl, that the meeting adjourn until 10 A. M., Friday, March 25, 1938. The motion carried, all Commissioners voting aye.

Pursuant to adjournment, the meeting was called to order at 10 A. M., Friday, March 25, in the Governor's conference room by Vice Chairman Henry Holt. The Secretary called the roll showing Commissioners Holt, Engen, Olson, Dahl, Simons and Whitney present. Governor William Langer, Chairman, absent.

Comm. Simons stated that he and Comm. Dahl had had a further conference with Mr. Frank Vogel of the Bank of North Dakota and stated that it was the understanding that funds will be advanced from time to time whenever the necessary security and bonds covering projects are presented as collateral and suggested that the Secretary proceed as fast as possible with plans for issuing bonds. It was moved by Comm. Olson, seconded by Comm. Engen, that the report of the Committee be accepted, and that they be complimented on their good work. The motion carried, all Commissioners voting aye.

Comm. Simons presented the report of the Irrigation Committee as follows:

"There have been no project applications acted upon by the Irrigation Committee since the last meeting of the Commission.

"On the 14th of March, I received a telegram from Mr. W. W. McLaughlin, who was then at Berkeley, California, asking that the Water Commission prepare and send to him at Washington

not later than March 17, a list of the projects approved by the Commission, but excluding those along the Missouri River. I contacted Mr. Mannerow asking him to prepare the list at once. The report was mailed in time to reach Mr. McLaughlin at Washington, March 17, and we listed as approved all of the projects on which this Commission has acted, together with such additional projects as seemed to be in shape for such listing. Mr. McLaughlin has approximately the same list as was approved by the National Rivers and Harbors Congress in Washington, in addition to quite a number of others.

"The reason for Mr. McLaughlin asking for this information was given very definitely. He is a member of a special committee which will make recommendations to the government for activity here in this section of the country. From other sources, I believe that we are going to see an opening up of federal works projects with regard to water conservation work and I think we should make such provision and preparation as we can to aid the government in the larger expanded program. The reason I wanted Mr. Knapp here was because he may have some information in regard to this. I think it leads towards something very important for us.

In regard to the Stout Irrigation Project, final and complete approval has been given it by the WPA in Washington. It is now ready to go ahead as soon as the WPA Administrator in North Dakota gives the signal to go ahead. That will be when he has the money to put into it. It will be necessary for him to make preparation to move men on the project and there is no immediate prospect that he will be ready to go ahead before the first of July.

"We have arranged with the warden of the penitentiary to go ahead again this year with the experimental plans similar to those which were made last year. In addition to the garden crops and field crops which were put in last year, this year we will arrange for raspberries, gooseberries, strawberries, plum trees, apple trees and other things of that sort. The warden has consented to it, and has been working it out with Mr. W. H. Farmer, Extension Irrigationist, in conjunction with the horticultural experts at the Agricultural College. The warden has some idea as to where he wanted these fruit trees planted, and the possibility is that we will be abandoning that project in a few years for an experiment station of our own, so I told the warden to put them where he wanted them. Plans will go forward as soon as the season is right for them."

Moved by Comm. Olson, seconded by Comm. Engen, that the report of the Irrigation Committee be accepted. The motion carried, all Commissioners voting aye.

Technical Advisor Knapp discussed with the Commissioners the various possibilities of the water conservation program and Vice Chairman Holt suggested that the Commission express its appreciation to the President of the recognition given the water conservation program and that we offer every possible cooperation.

At 12 o'clock noon, the Vice Chairman declared a recess until 1 P. M.

At 1 P. M. the meeting reconvened with all Commissioners present except Governor William Langer Chairman.

The Commission discussed the Memorandum of Understanding between the Agricultural College and the Commission in regard to the services of William H. Farmer, Extension Irrigationist, and changes were suggested in paragraphs two and six in the agreement.

Moved by Comm. Olson, seconded by Comm. Engen, that the Memorandum of Understanding be accepted with the recommendations suggested for changes in the two paragraphs and that the Chairman and Secretary then be authorized and directed to sign the agreement. The roll was called and the motion carried, all Commissioners voting aye.

Moved by Comm. Simons, seconded by Comm. Whitney, that Comm. Dahl contact Mr. Clayton Worst, or such other individuals as he deems suitable to ascertain what can be done in regard to employing an extension irrigationist and report back to the Commission. On Roll call the motion carried, all Commissioners voting aye.

The Secretary read the report of Technical Advisor George S. Knapp in connection with the conference held in St. Paul, Monday, March 21 on the Red River Drainage Basin Program:

March 25, 1938

State Water Conservation Commission
Bismarck, North Dakota

Gentlemen:

On Monday, March 21st, pursuant to the authorization of this Commission, Mr. Thomas, Mr. Hollis and myself met in St. Paul to make a more detailed examination of available Red River basin water supplies looking toward a determination of the benefits of the proposed Missouri River Diversion project to the portion of North Dakota in that basin and correlation of the two projects.

The first day in St. Paul the three of us conferred with Col. Phillip B. Fleming and his staff on questions relating to the computation of the amounts of stream flow necessary for the dilution of sewage in the Sheyenne and Red Rivers. This involved, among other things, the method of computing the reduction of the dissolved oxygen content of the water during that period of the year when the streams would be covered with ice. It appeared that Mr. Hollis had arrived at a conclusion which differed from that of the United States Engineer Office.

Following that some time was spent in discussion the method used by Col. Fleming's office for the computation of the probable water supply for the Baldhill Reservoir, there being no stream flow records for that location. As a result of the discussion, Col. Fleming is to supply the Commission with charts and a statement of the process used by them in these calculations. In their studies, the Omaha office made computations of the water supply for that project which we questioned in our appeal to the Board of Rivers and Harbors in Washington in September, 1937. The computations made by the St. Paul office resulted in an even larger estimated water supply.

Tuesday morning Vice Chairman Holt and Commissioners Olson and Engen having arrived, the six of us again called on Col. Fleming. During the discussion Col. Fleming told us that the Tri-State compact had been approved by congress, including the provision which excluded the Ottertail Basin from the authority of the Tri-State Waters Commission. He also told us that their office had concluded that without authority over this basin the projects in the main river plan could not be operated to obtain the minimum flows needed during drouth periods. Later in the morning all of us except Mr. Hollis went to the Capitol Building and called on Mr. Dean Helm and Mr. E. V. Willard.

Tuesday afternoon, Commissioners Olson and Engen, with Mr. Thomas and myself called on Mr. Heskett and Mr. Hayes of the Montana-Dakota Utilities Company in Minneapolis to discuss electric rates for the Buford-Trenton irrigation project.

They stated that the rate of four mills per KW hour plus a charge of \$6.00 per KW of connected load was the lowest price their company could make. This, according to figures of the Bureau of Reclamation, will make electricity for that project cost about 7.7 mills per KW hour.

Wednesday forenoon Mr. Thomas and I called on Mr. Batchelder of the United States Geological Survey where after discussing stream-gaging records on the various tributaries of the Red River, we went into some detail as to methods of computing the flow of the Sheyenne River at Valley City from fragmentary records of the Sheyenne at West Fargo and at Sheyenne. From this information together with that which Col. Fleming plans to send, it should be possible for us to make a computation of our own as to the water supply of the Sheyenne above Valley City. How it will agree with the computations made by the Omaha and St. Paul offices of course remains to be seen.

Mr. Thomas and I spent Wednesday afternoon at the hotel summarizing the results of our three days work and left that evening for North Dakota.

Respectfully submitted,
GEORGE S. KNAPP, Technical Advisor

The Secretary then read the report of Chief Engineer E. J. Thomas of the conference held in St. Paul, Monday, March 21 on the Red River Drainage Basin Program.

March 25, 1938

REPORT

To: State Water Conservation Commission
Bismarck, North Dakota

Gentlemen:

In accordance with the instructions and authorization of your Commission, myself and others made a trip to St. Paul, Minnesota, for the purpose of conferring with the District Engineer, Corps of Engineers, U. S. Army, in regard to the report of the War Department on the Red River of the North Drainage Basin. It was understood that other matters pertaining to the work of the Water Commission were to be taken care of on this trip.

The following is my report with respect to such trip and conferences:

On Monday, March 21st, Mr. Geo. S. Knapp, Technical Advisor of the Commission, M. D. Hollis, State Sanitary Engineer, and myself called at the office of Colonel Phillip Fleming, District Engineer, Army Engineers Office, and conferred with him and engineers of his staff in regard to various matters pertaining to such Red River Drainage Report. The matter of stream flow necessary for dilution of treated sewage was discussed at some length by Mr. Hollis and Mr. Lyons. Mr. Lyons was engaged in the preparation of the report. Stream flow requirements as computed by Mr. Hollis are at variance with those as computed by the War Department and show considerably larger flows to be necessary for proper dilution of treated sewage. In these discussions special reference was made to the methods and basic figures used in computing stream flows for periods of ice-coverage and periods of extreme high temperatures.

Inquiry was made as to the effective drainage area in the Sheyenne River basin above Valley City. A detailed written statement in this regard as previously prepared for another Federal Department was read to us. This detailed statement together with charts and maps in connection therewith will be furnished to the Water Commission for study by its engineers. Because of the absence of stream measurement records for this location the matter of run-off figures used in determining reservoir storage and regulated flow in the stream was discussed.

Our conversations at this conference touched briefly on the matter of the availability of sufficient water within the Red River Drainage basin to meet regulated stream flow requirements for industries and towns on the Sheyenne and Red Rivers. Colonel Fleming brought to our attention the fact that approval was made during the past few days by Congress of the Interstate Compact between the States of Minnesota, South Dakota and North Dakota.

It was arranged with Colonel Fleming that the conferences would continue the following day when we would be accompanied by members of the North Dakota Water Conservation Commission. On Tuesday, March 22nd, Vice Chairman Holt, and members Olson and Engen of the Commission, accompanied us to the office of Colonel Fleming. At this conference the subjects discussed on the previous day were again discussed with their scope somewhat enlarged upon and extended. With respect to stream flow requirements it was agreed that further research work would be made in connection with regard to basic figures used in connection with stream flows necessary for dilution of treated sewage during ice-coverage periods. Colonel Fleming again brought to our attention the copy of the Congressional Act approving the Interstate Compact.

It was shown that the Ottertail Drainage Basin was excluded from the provisions of this Act.

It was pointed out that it was important to know definitely what dependent regulated flows can be obtained in the Sheyenne and Red Rivers from within the Red River Basin and what additional waters are to be diverted into these streams by means of the Missouri River Diversion project for maintaining necessary flows for maintaining municipal water supplies and sewage dilution. In connection with this discussion it was mentioned by Colonel Fleming that the main water plan for the Red River Basin provided that about 70% of the required regulated flows in the Red River would be obtained from the Ottertail River Basin. In a discussion as to the adequacy of the Red River Plan with the Ottertail Drainage Basin excluded from the provisions of the Interstate Compact and from the Federal Act approving such compact, Colonel Fleming referred us to conclusions as set forth by the War Department in its report to the Works Progress Administration and read to us such conclusions which are as follows:

"The present status of this matter is that the Tri-State Waters Commission, as created by the legislatures of the three states, had its first meeting and organized on May 14, 1937. The Minnesota law authorizing participation in the Commission grants authority which is plainly inadequate for the coordination and operation of the water plan in that the law specifically excludes the Otter Tail basin from the authority of the Commission. Without authority over this basin, the projects in the main water plan could not be operated to obtain the minimum flows required in drought periods."

We then visited the office of the Tri-State Water Commission in the State Capitol Building. There we conferred with Mr. Dean Holm, Secretary of the Commission and with Mr. E. V. Willard, Chief Engineer of the Minnesota Conservation Department. Various matters in connection with water resources and stream flow regulations were discussed.

On the afternoon of March 22nd, Messrs. Engen, Olson, Knapp and myself, visited the offices of the Montana-Dakota Utilities Company, and conferred with Mr. Heskett, President, and Mr. Hayes, Vice President, with regard to power rates for pumping in connection with irrigation development on the Buford-Trenton Project. They informed us that it would be impossible for them to quote a lower power rate from that previously quoted.

On March 23rd, Mr. Geo. S. Knapp and myself conferred with Mr. Chas. L. Batchelder, District Engineer of the U. S. Geological Survey, in regard to stream gaging records on stream in the Red River Valley and in regard to a stream gaging station now being maintained on the Sheyenne River at Valley City. Much information was obtained from Mr. Batchelder which will be of value in connection with our studies of the Red River plan and the Missouri River Diversion Project.

Much information was obtained on this trip which will be of value to the Commission in connection with the studies now being undertaken. I am quite of the opinion that substantial progress is being made in the matter of correlating factual data and obtaining additional information.

E. J. THOMAS, Chief Engineer.

The Secretary then read the report of Mr. M. D. Hollis, Sanitary Engineer of the State Health Department on the conference held in St. Paul, Monday, March 21 on the Red River Drainage Basin Program:

North Dakota
State Department of Health
Division of Sanitary Engineering
Bismarck, North Dakota
March 25, 1938

MEMORANDUM TO
STATE WATER CONSERVATION COMMISSION
REGARDING
RECOMMENDED MINIMUM FLOWS NECESSARY TO REDUCE SANITARY
NUISANCES AT VARIOUS CITIES ALONG RED RIVER AND MAJOR TRIBUTARIES

Pursuant to a written request from the State Water Conservation Commission dated March 24, 1938 there follows a concise memorandum dealing with recommended minimum flows to reduce sanitary nuisances at various cities along the Red River of the North and its major tributaries.

Basic Computations

To present figures of necessary minimum flows that could accurately be applied to the Red River of the North would require extensive field and laboratory studies over a period of at least a year. A search through available literature dealing with research in streams similar to the Red River of the North fails to reveal any authentic information that could be applied directly to this problem. However, there have been innumerable studies by accepted authorities in the field of stream pollution that provide sufficient basic information to intelligently compute minimum flows that should be reasonably accurate. In the absence of actual research on the problem, all assumptions made in the computations of flows are based on ideal conditions and represent the absolute minimums that should be provided at the critical periods. In other words, factors that cannot be definitely assigned values have been omitted from computations.

The original report of this Department submitted to the North Dakota State Water Conservation Commission on April 20, 1937, set forth the reasoning behind the assumption that the dissolved oxygen content of the stream under ice coverage conditions would be reduced, due to natural factors alone, from a point nearing saturation to approximately 6 ppm by the time of the spring ice break-up. This reasoning is used in the U. S. Army Engineers report on the Red River of the North Drainage Basin dated July 1937, and in the report of the Minnesota Division of Sanitation transmitted to the Tri-State Waters Commission dated August, 1937. This assumption is based on the best information available at the present time and has been concurred in by consulting authorities since its initial presentation. (For detailed discussion refer to report of this Department "Concise Discussion and Data on Stream Pollution and Stream Purification Phenomena", compiled for the North Dakota State Water Conservation Commission, dated April 20, 1937.)

Using research figures compiled by the U. S. Public Health Service, Chicago Sanitary District, and others, dealing with the total oxygen demand in pounds per capita per day of various cities it has been established that this demand varies generally from 0.22 to 0.26 pounds per capita per day. Using these authorities plus such studies as have been conducted in the basin under consideration, it is the opinion of this Department that the most nearly accurate figure applicable would be that of 0.24 pounds per capita per day. Incidentally, this is concurred in by both the U. S. Army Engineers report of July, 1937, and the Minnesota report to the Tri-State Waters Commission of August, 1937.

Approximately 3 ppm of dissolved oxygen are necessary to sustain aquatic life. Also some dissolved oxygen should be left in streams used for municipal water supplies to prevent septic conditions with the accompanying tastes and odor troubles. If we assume the dissolved oxygen content of the water as approaching saturation just prior to the freeze-up, the utilization of the dissolved oxygen content will be approximately as follows:

- (1) The reduction to 6 ppm required for oxidation of washed in pollution and drainage of barn yards, surface pollution, etc., and the oxidation of such plankton organisms as expire due to the absence of light under ice and snow coverage.
- (2) An allowance of 3 ppm to sustain aquatic life and leave the water in such condition as are suitable for public water supplies and other normal uses.

(3) The remaining 3 ppm can be assigned to the dilution of municipal and industrial wastes contributed by the various municipalities.

Minimum flows necessary to provide this 3 ppm for use in oxidizing treated municipal and industrial waste can readily be calculated provided the populations are known and the industrial waste can be converted into population equivalents. In other words, if the assumptions that the dissolved oxygen content will be reduced from approaching saturation to 6 ppm during the period of ice coverage, and 0.24 pounds of oxygen demand per capita per day are correct, the calculations of minimum flows at critical periods are purely mathematical and not subject to controversy.

Populations of Municipalities as of 1950

There are several acceptable methods for estimating future populations of municipalities. The computations used in this report to estimate the July 1950 populations of various municipalities along the Red River and its major tributaries are as follows:

(1) The 1920 census was taken as of January 1, 1920, and the 1930 census as of April 1, 1930. This represents the increase during 123 months. April 1, 1930 to July 1, 1950, represents 243 months.

(2) The increases in population above the 1930 census were taken as the 1930 population minus 1920 population divided by 123 and multiplied by 243. By adding this increase to the 1930 population gives the estimated population as of July 1, 1950. In instances where the population trend was downward from 1920 to 1930, the 1930 populations were applied. (Four cities).

Critical Periods

From the standpoint of dissolved oxygen content, the two critical periods in the stream are in the early spring just prior to ice break-up and in the late summer where the temperatures of the water are at a maximum. The early spring critical point is attributed to the long period of ice and snow coverage where sunlight and reaeration are excluded. As the water temperature increases the dissolved oxygen saturation limit decreases and hence the summer critical period. Where the temperatures approach 23° C. the dissolved oxygen saturation limit is approximately 8 ppm. Assuming that 2 ppm are used by natural pollution alone, the critical period in late summer would require approximately the same flow as the critical period in early spring before ice break-up, except the flows are not cumulative.

Recommended Minimum Flow

The recommended minimum flows at the two critical points are computed on a basis of 3 ppm dissolved oxygen being available for the oxidation of contributed municipal and industrial waste, using computed municipal populations as of July 1, 1950.

Any attempt to estimate the industrial populations equivalent as of July 1950 would be subject to controversy, unless definite information were available as to proposed new industries or increases in existing industries. Therefore, industrial wastes are computed as populations equivalent as of 1930. No 1950 estimates are made.

The computations are all based on the assumption that 85% reduction will be obtained by sewage and industrial waste treatment.

Table I lists the various municipalities and industries contributing pollution to the Red River of the North or its major tributaries and the computed minimum flows required at the two critical periods. Winter flows are, of course, cumulative since reaeration is negligible under ice and snow coverage.

TABLE I

CITY OR INDUSTRY	1930 POP. EQUIV.	1950 POP. EQUIV.	MIN. FLOW CRITICAL PERIODS *	
			LATE SUMMER	ICE DOVER
Fergus Falls	9389	13000	28.6	28.6
Breckenridge	2264	2264	5.0	33.6
Wahpeton	3176	3390	7.5	41.1
Moorhead	7651	11513	25.3	66.4
Fargo	28619	41935	92.2	158.6
Lisbon	1650		3.7	3.7
Valley City	5268	6400	14.1	17.8
West Fargo (Also S.W.)	500	1500**	3.3	21.1
Armour Packing Co. (W. Fargo)	55600		122.3	143.4
Junction Red & Sheyenne				302.0
Thief River Falls	4268		9.4	9.4
Red Lake Falls	1386		3.0	12.4
Crookston	6321		13.8	26.2
Grand Forks	17112	23316	51.3	379.5
Junction Red Lake & Red				328.2
East Grand Forks	2922	3786	8.3	387.8
Beet Sugar Factory (3-4 mo. per year)	142000##		312.4#	700.2
Packing Plant (Grand Forks)	7200###		15.8	716.0

*In cu. ft. per sec. at times minimum dissolved oxygen content - summer at maximum water temperature. Early spring just prior ice break-up.

**Special estimate based on field study.

***Population equivalent based on average kill of 2,000 animals per day and using the population equivalent of 27.8 per animal, from Bulletin 171, United States Public Health Service.

#Probably not in operation at this time. Operation during approximately 3 months per year - late fall and early winter.

##Same basis as Armour, using equivalent kill of 259 animals per day.

###From Joint Pollution Study of Red River, 1931-1932-1933.

In computing minimum flows at the summer critical period, the recommended flow at each point of pollution is shown. In instances where points of pollution are relatively close thereby precluding stream recovery between pollution dosages, the required flows should be added: Example: Fargo-Moorhead as one point, recommended flow of 117.5 cu. ft. per sec.

It is the offhand opinion of this office that the minimum winter flows should be established prior to heavy ice formation to insure channel capacity as the critical period is approached. However, this question is one of hydraulic engineering rather than sanitary engineering. In any event, such consideration would not alter the minimum recommended flows, at the critical periods, as set up in Table I.

Approved:
MAYSIL M. WILLIAMS, M. D.,
State Health Officer.

Respectfully,
M. D. HOLLIS, DIRECTOR

The Secretary then read the report of Commissioners Holt, Olson and Engen of the meeting held in St. Paul, March 21 and 22, in regard to the Red River Drainage Basin Program:

March 25, 1938

State Water Conservation Commission
Bismarck, North Dakota

Gentleman:

We wish to submit the following report on behalf of the three members of the Commission

authorized and ordered by the Governor to attend the conference in St. Paul:

"As has been brought out in the reports of both Technical Advisor Geo. S. Knapp and Chief Engineer E. J. Thomas, we arrived in St. Paul on Tuesday morning and substantially everything contained in the reports as made by the Engineers was brought out at this conference.

"As members of the Commission, we feel that special emphasis should be placed upon the statement of Col. Phillip B. Fleming to this group when he quoted from the Army Engineers own report relative to the Red River Plan--namely that unless power was given to the Tri-State Commission for full authority over the Ottertail Basin in Minnesota, the Red River Plan was inoperative.

"We also wish to further call attention of the members of this Commission, and ask for such action as they see fit, upon not only our own particular recommendations but more particularly upon the report of M. D. Hollis of the State Health Department.

"The reports as have been made by our consultant, Mr. Knapp, and Our Chief Engineer are self-explanatory, and further study will be made by them and compilations and results we presume will be available to the Commission at any early date. We suggested to Col. Fleming that when such reports and research have been completed that a joint meeting again be held between this Commission, his office, and the members of the Omaha U. S. Army Engineer's office, the meeting to be held at Bismarck. This he agreed to and offered all cooperation possible and suggested that in his opinion the Omaha office also would be very anxious to cooperate.

Respectfully submitted,
HENRY HOLT, Vice Chairman
GERALD C. OLSON, Member
J. ARTHUR ENGEN, Member

Moved by Comm. Simons, seconded by Comm. Whitney, that the Secretary be directed to make copies of these reports and send them to the City Commissioners, Secretaries of the Chambers of Commerce and newspapers of Fargo, Grand Forks, Valley City and Jamestown, Mr. L. B. Hanna and the Greater North Dakota Association. The motion carried, all Commissioners voting aye.

The Secretary read the Financial Statement for the Month ending March 11, as follows:

FINANCIAL STATEMENT OF THE STATE WATER COMMISSION

As of March 11, 1938

	APPORTIONMENT	
	<u>To Commission</u>	<u>To Project</u>
Administrative Salaries	\$ 10,638.32	
Administrative Mileage & Expense	1,611.41	
Administrative Office Equipment	2,776.95	
Administrative Office Supplies	946.48	
Engineering Salaries, Mileage & Expense	15,516.28	\$ 12,063.53
Engineering Office Equipment	1,602.75	
Engineering Field Equipment	979.32	
Engineering Office Supplies	692.49	
Maps	298.80	
Buford-Trenton Irrigation Project		1,000.00
Commissioners Per Diem	1,655.00	
Commissioners Mileage & Expense	1,466.38	
Tri-State Per Diem & Expense	709.40	
Washington Trip Per Diem & Expense	1,750.19	
Legal Service	1,172.50	
Legal Service Mileage & Expense	105.87	
Printing	394.51	
Telephone & Telegraph	639.49	
Postage & Express	80.20	
Missouri River Diversion	1,333.88	

Financial Statement--Continued

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APPORTIONMENT

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	<u>To Commission</u>	<u>To Project</u>
Fieldmen	1,863.85	2,016.74
Projects		15,263.91
Preliminary Investigation & Research Chgs.	234.82	
Insurance	327.36	
Construction Supplies	898.72	
Bonding of Employees	2.50	
National Reclamation Association	100.00	
TOTAL EXPENDITURES (B)	<u>\$47,797.47</u>	(C) <u>\$30,344.18</u>
Total Expenditures of Commission & Projects as of March 11, 1938 (B & C) \$ 78,141.65		
Total Appropriation by Legislature	\$112,500.00	
Amount Credited to Comm. as Application Fees	1,205.20	
Amount Credited to Comm. as Beneficiary Returns	18.26	
<u>Total of Administrative Appropriations Plus Deposits</u>		(A) <u>\$113,723.46</u>
Total Expenditures Charged to Commission (Nonrepayable)		(B) \$ 47,797.47
<u>Actual Balance of Administrative Fund (Disregarding any Project Charges)</u>		\$ 65,925.99
Total Expenditures Charged to Projects (Repayable to Commission)		(C) \$ 30,344.18
BALANCE of Administrative Appropriation Plus Deposits (A) Less Commission (B) and Project Expenditures (C).		\$ 35,581.81

Moved by Comm. Simons, seconded by Comm. Whitney, that the Financial Statement be accepted and that it be made a part of the minutes of this meeting. The motion carried, all Commissioners voting aye.

The Secretary was directed to ask the Governor to write the President thanking him for the interest that the federal government has shown in the problems of North Dakota, and more especially, a word of appreciation for having sent Mr. Black here, and that he, as Chief Executive of the State, offer to the President any assistance and all the help that he can give and more especially to offer the services of the Water Conservation Commission in connection with the comprehensive plan discussed with Mr. Black.

Moved by Comm. Simons, seconded by Comm. Whitney, that the Secretary and Chief Engineer be instructed to make application for such help from WPA as will reduce the cost of projects to the Water Commission. The motion carried, all Commissioners voting aye.

Mr. W. G. Sloan of the Bureau of Reclamation, and Mr. Paul Wagner, Great Northern Railway came into the meeting to appear before the Commission. Mr. Sloan stated he was much impressed with the dire need of western North Dakota. He stated that out of 19,000 people in Williams County, 15,000 were on relief, while across the river on the Yellowstone, where the land is irrigated, only 5% are on relief. He also discussed the Trenton-Buford Project and stated that as far as he knew there would be no further preliminary cost on the Trenton-Buford Project.

In answer to a question asked by Comm. Simons concerning the populating of the Trenton-Buford Project, Mr. Sloan said that they had done some work along that time and would have some good suggestions as soon as the project is authorized. It will take one season, he stated to build the project, and stated that they would go into the settlement problem with the Commission and give them the benefit of their experience.

He stated that he would estimate the cost of construction and maintenance of the Trenton-Buford Project for a year or two and equipment left to maintain the system, would amount to about \$60.00 per acre, for 13,400 net acres, or approximately \$800,000. He stated that in his opinion the project is economically feasible and that there is no comparison between it and the Buffalo Rapids Project which they are building now. He stated that payments on the Trenton-

Buford Project would amount to about \$3.71 per acre per year.

After a discussion, it was moved by Comm. Simons, seconded by Comm. Olson, that the Commission approve the recommendations of the Bureau of Reclamation as made by Mr. Sloan with such suggestions as have been made to the Commission by Technical Advisor Knapp. The motion carried, all Commissioners voting aye.


Comm. Engen, Chairman of the Auditing Committee stated that in compliance with the motion passed at the last meeting, he had requested Mr. Al V. Hartl to proceed with a study of the Commission's bookkeeping system for the purpose of recommending and suggesting any improvements, and that Mr. Hartl would do so and would report to the next meeting.

Moved by Comm. Simons, seconded by Comm. Olson, that the report of the Auditing Committee as made by Comm. Engen be approved. The motion carried, all Commissioners voting aye.

The Governor came into the meeting and there was a general discussion of the actions taken by, and the program of, the Commission.

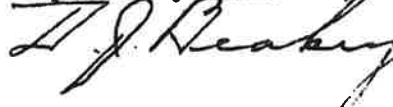
At 5:30 P. M. it was moved by Comm. Olson, seconded by Comm. Dahl, that the meeting adjourn until 10 A. M., Wednesday, April 27, 1938. The motion carried, all Commissioners voting aye.

APPROVED:



Chairman

Respectfully submitted,



D. J. Beakey, Secretary