

MINUTES OF A REGULAR MEETING OF THE
STATE WATER CONSERVATION COMMISSION
Held in the Governor's Conference Room
At Bismarck, North Dakota
August 27 and 28, 1937

A call for a regular meeting of the Commission to be held in the Governor's Conference Room at the State Capitol, beginning at 1:30 P. M., Friday, August 27, 1937, was mailed to all members under date of August 19, by order of the Chairman, Governor William Langer.

The meeting was called to order by the Chairman, Governor William Langer, at 1:30 P. M., August 27, 1937, in the Governor's Conference Room, in the State Capitol at Bismarck. The roll call showed all members present. The Governor asked to be excused on account of other pressing business, and turned the gavel over to Vice Chairman Holt.

PRESENT:

VISITORS

- Chairman William Langer
- Vice Chairman Henry Holt
- Comm. Kenneth W. Simons
- Comm. J. Arthur Engen
- Comm. Gerald C. Olson
- Comm. D. J. Beakey, Sec'y.
- Comm. Frank P. Whitney

- Thomas H. Moodie, WPA Administrator
- T. J. Plomason, WPA Engineer
- L. H. Belk, WPA Engineer
- George S. Knapp, Technical Advisor
- E. J. Thomas, Chief Engineer
- H. A. Bronson, Legal Advisor
- H. E. Mueller, Bond Buyer

Moved by Comm. Simons, seconded by Comm. Whitney, that the reading of the minutes be dispensed with in view of the fact that a typewritten copy had been previously mailed to each member of the Commission and there being no errors noted. The motion carried, all members voting aye.

A delegation from Mountrail County, consisting of P. M. Shefveland, H. A. Traynor, C. A. Pickering and E. Holt, appeared before the Commission for the purpose of calling attention to the condition of many farm families in that area and the need for immediate substantial assistance. Commissioner Simons stated that the Board was doing all within its power to get irrigation projects started and to make farmers eligible for employment on such projects, under the WPA. It was decided that the Commission would get in touch with the delegation later.

A committee from Powers Lake, consisting of John Grubb, S. M. Jenson, Charles Frank, Robert Goodman, Jake Boyd, Conrad Peterson, Martin Sellie, Oscar Kallberg, and Howard Burd, appeared before the Board asking for the construction of a dam at Powers Lake. Mr. Thomas H. Moodie, WPA Administrator, stated that it would be impossible for the WPA to start any projects that could not be completed by July 15, 1938, and also stated that it was impossible for WPA to hire farmers on such projects. Technical Advisor Knapp and WPA Engineer Plomason stated that after investigation, they found the site was not feasible from an engineering standpoint. The Commission decided it would be impossible for them to undertake the project.

A delegation was also present from White Earth to present a petition for the erection of a dam near White Earth. Commissioner Henry Holt supported their petition, stating that he had visited the project and that conditions were just as represented to the Board by the delegation. He then called upon Technical Advisor George S. Knapp to give his opinion as to the feasibility of the project. Mr. Knapp stated he had visited the proposed site and his opinion was altogether favorable. The Secretary read telegrams from the Tioga, White Earth, Bowbells and Battle View Commercial Clubs; the Board of County Commissioners of Burke and Mountrail Counties; the Farmers Union Locals at Stanley and Palermo; and the White Earth, Ross, Dry Fork, Myrtle, Bicker and Sorkness Townships in Mountrail County, all recommending construction of the dam. The delegation also presented petitions filed and signed by many residents of that district.

urging its construction. Comm. Simons suggested a cooperative agreement with the counties and townshio. Vice Chairman Holt stated that in view of the great interest shown he felt that the Commission should assist the project in every way possible. It was decided that the test wells should be sunk after which an engineer would be sent out to look over the situation.

Moved by Comm. Beakey, seconded by Comm. Whitney, that Technical Advisor Knapp be given full power to act in sending an engineer to make further investigation after the test wells had been sunk. The Secretary called the roll, all members voting aye.

Mr. Frank Vogel, Manager of the Bank of North Dakota, was present in response to a letter written to him by the Secretary in the matter of the Bank of North Dakota purchasing revenue bonds of the State Water Conservation Commission, Judge Bronson explained briefly the plans of the Commission in regard to the use of the money to be received from the sale of bonds. After some discussion, Commissioner Siions asked Mr. Vogel the following questions: "Assuming that the bonds are issued so as to meet all conditions of the law under which they are authorized, what the Commission wants to know is whether or not the Bank of North Dakota would buy some of the bonds and also if the Bank would help the Commission market them and what your idea of a market would be." In reply Mr. Vogel stated that if the bonds were properly set up, that the Bank of North Dakota would help to market them, but that they could not be purchased outright with Bank of North Dakota funds. He stated that they would only wish to handle as little as possible, but might be able to market up to \$50,000.00.

The Secretary read a telegram from Senator James E. Murray of Montana, addressed to Vice Chairman Henry Holt, concerning the qualifications of Mr. Girard Walsh of Missoula, Montana who is making application for a position with the Commission.

The report of the Secretary was read, including resolutions from Williams and McKenzie Counties in regard to putting farmers to work on WPA projects.

Moved by Comm. Simons, seconded by Comm. Whitney, that the report and resolutions be filed. The motion carried, all Commissioners voting aye.

The Secretary presented a financial report showing expenditures to date on projects and for administrative purposes. Copies of the report were handed to each member of the Commission. Moved by Comm. Whitney, seconded by Comm. Simons, that the report be accepted and placed on file.

Mr. Oscar Hagen, appeared before the Board in regard to his status in regard to his employment with the Commission. It was decided to continue to hire Mr. Hagen on a per diem basis, but to call him in in case it is necessary to have work of that type done.

Technical Advisor Knapp brought up the question as to whether the salaries of Chief Engineer Thomas, Mr. J. J. Walsh, and Office Engineer C. E. Mannerow, should be charged to the administrative fund or under engineering in the new bookkeeping set up. After some discussion, it was moved by Comm. Simons, seconded by Comm. Whitney, that Secretary Beakey and Mr. Knapp get together and decide the matter. The Secretary called roll, all Commissioners voting aye.

Moved by Comm. Engen, Seconded by Comm. Simons, that the payment of Oscar Hagen's expense account be referred to the Auditing Committee, with power to act. The Secretary called the roll and the motion carried, with all Commissioners voting aye.

Comm. Simons presented the following report in behalf of the Project Committee:

"The following projects have been approved on the dates indicated:

<u>Date</u>	<u>Project</u>	<u>Name</u>	<u>Address</u>	<u>Engr.</u>	<u>Cons't.</u>
July 12	152	Leona Myrhow	Williston	\$160.00 + 25%	\$779.50 +25%
" 19	2	A. W. Gussner	Bismarck	320.00	310.00
" 19	21	Wagon Wheel Bluff	Bismarck	1200.00	-----
" 19	151	Gust Johnson	Watford City	80.00	324.50 +25%
" 27	28	A. L. Maxwell	Turtle Lake	40.00	905.00 " "
" 27	156	John Wendike	Watford City	80.00	696.00 " "
Aug. 7	55	Frank Slag	Bismarck	80.00	240.00
" 7	161	H. W. Long	Solen	80.00	378.00 " "
" 16	163	F. M. Hendrixon	Arnegard	160.00	863.00
" 25	122	Vern Sonderquist	Columbus	40.00	307.00 " "
" 25	130	Mary B. Materna	Manning	50.00	400.00 " "
" 25	155	William Rehberg	Alexander	60.00	314.00 " "

The following have been approved for Engr. only, the applicants to pay 100% of the cost:

<u>Project</u>	<u>Name</u>	<u>Location</u>
150	Stout Project	16 miles south Bismarck
153	State Hospital	Jamestown
160	Painted Woods	16 miles south Washburn

At 6:30 P. M., Vice Chairman Holt stated if there was no objection, the meeting would adjourn until 7:30 P. M. No objection appearing, the meeting adjourned.

Pursuant to adjournment, the meeting was called to order at 7:30 P. M., by Vice Chairman Henry Holt with all members present, except the Chairman, Governor William Langer.

Comm. Simons read a written report on the Washington trip, prepared by Vice Chairman Henry Holt. The Committee report that the WPA would assist in the program to put farmers to work on irrigation projects. Moved by Comm. Simons, seconded by Comm. Olson, that the Committee report on the Washington trip be accepted. The motion carried, all Commissioners voting aye.

Vice Chairman Holt appointed Comm. Simons and Comm. Olson as a Committee to draw up a resolution to send to Government officials in Washington, D. C. regarding the plight of the farm families in North Dakota. The Committee reported the following resolution:

"Whereas, thousands of western North Dakota farmers have been reduced to utter destitution by drouth and repeated crop failures;

And whereas many of these famrers are now actually starving and all face acute misery

unless immediate action is taken to improve their condition;

And whereas, although the government has already spent millions of dollars in relief, extensive additional help is imperative if these people are to avoid death from hunger and cold;

Now, therefore, be it resolved, by the North Dakota Water Conservation Commission, after independent investigation and also hearing delegations appearing before it, that the following recommendations be made to the federal government.

That President Roosevelt is urgently requested to send his son, James Roosevelt, to North Dakota as his personal representative to check the truth of these statements.

That the relief program in North Dakota be unified with authority and power to act placed in the hands of one government official who shall either direct or coordinate, preferably the former, the activities of all government relief agencies.

That a work program on water conservation projects be made a definite part of the government policy.

That where such work program is for any reason infeasible, grants be made a definite part of the government policy.

Be it further resolved that the North Dakota Water Commission finds that the grants now being made to farmers by the Rural Resettlement Administration are so scandalously low as to permit a living standard no higher than that which prevails in China and earnestly recommends to the federal government the immediate liberalization of such grants that farmers in need may be enabled to live, clothe their children and send them to school this winter.

And be it further resolved that copies of this resolution be sent to the President of the United States, to M. L. Wilson, under-secretary of agriculture, to Harry Hopkins, Administrator of the WPA and to the heads of all relief agencies now operating in North Dakota.

Said resolution unanimously approved by the North Dakota State Water Conservation Commission at its meeting held in the North Dakota State Capitol building this 28th day of August, 1937."

Moved by Comm. Simons, seconded by Comm. Olson, that the resolution be adopted. The motion carried, all Commissioners voting aye.

Moved by Comm. Olson, seconded by Comm. Holt, that copies of the resolution be sent to the Committee which appeared before the Board. The motion carried, all Commissioners voting aye.

Technical Advisor Knapp reported that he and Chief Engineer Thomas had had various conversations with Judge A. M. Christianson of the Rural Rehabilitation Corporation and that they had finally persuaded Judge Christianson to reduce the understanding to writing in the form of an agreement whereby the Rural Rehabilitation Corporation would purchase bonds of the State Water Conservation Commission with the purpose of promoting some of the larger projects. Judge Christianson was requested to appear before the Board and immediately responded. Copy of the suggested contract between the Rural Rehabilitation Corporation and the State Water Conservation Commission was read and after some discussion, certain revisions were mutually agreed upon.

Moved by Comm. Whitney, seconded by Comm. Olson, that a committee, consisting of Comm. Simons, Secretary Beakey and Technical Advisor Knapp, be appointed to confer with Judge Christianson as to the terms of the contract for the financing of irrigation projects, and that the committee have power to enter into such an agreement on behalf of the Commission, and the Chairman and Secretary be authorized and directed to sign the said agreement upon its approval by the committee. The roll was called and the motion carried, with all members voting aye.

Technical Advisor Knapp suggested that Mr. Schollander be instructed to go to work on preliminary investigations needed in connection with the foregoing agreement. The Secretary was instructed to contact Mr. Schollander for that purpose.

Technical Advisor Knapp gave a verbal report on the Grantier project, and Chief Engineer Thomas submitted a written report showing the estimated cost of these projects (the Grantier and Sioux Mutual Aid projects), copies of which are hereto attached.

Mr. H. E. Mueller of Hazen, North Dakota, appeared before the Commission concerning the possibilities of marketing revenue bonds which the Commission is authorized to issue. He gave an outline of his experience in the marketing of such bonds and outlined the necessary steps to be taken in the event such bonds were to be offered for sale to bond buyers. The Board decided to take no action on the matter at this time.

At 11:30 P. M. it was moved by Comm. Olson, seconded by Comm. Engen, that the Board adjourn until 9 A. M., August 28. The motion was carried, all Commissioners voting aye.

Pursuant to adjournment the meeting was called to order at 9 A. M., August 28, by Vice Chairman Henry Holt, with all Commissioners present.

Moved by Comm. Engen, seconded by Comm. Simons, that the Secretary be directed to write to Resettlement officials asking them the name of the official making a recent newspaper statement concerning the Missouri River Diversion project and the grounds for such statement, and inviting them to attend the hearing on Missouri River Diversion to be held in Washington, September 27. The motion was carried, all Commissioners voting aye.

Technical Advisor Knapp gave a detailed report on the progress being made in gathering data on Missouri River Diversion to be presented at the conference in Washington, September 27, and it was moved by Comm. Whitney, seconded by Comm. Simons, that Technical Advisor Knapp, Vice Chairman Holt, Comm. Engen, Comm. Olson, and, if they deem it advisable, Dr. Irvin Lavine, be authorized to attend the Missouri River Diversion hearing to be held in Washington, Monday, September 27. The Secretary called the roll. The motion carried with all Commissioners voting aye.

Mr. Gilbert White, Secretary of the National Resources Board of Washington, D. C., who was in the city on an inspection tour, was introduced to the members of the Board by Dr. Irvin Lavine, and gave a very interesting discussion concerning the progress being made with irrigation projects and in regard to the work of the National resources Board.

Technical Advisor Knapp followed with an outline of the various projects in North Dakota.

Governor William Langer presented a letter received by him, and which was read by Comm. Simons, wherein it was stated that a works program could not be put into effect for farmers in North Dakota.

The matters of delay in receiving grant checks by farmers from the Resettlement Administration and the exceedingly small amounts allowed under such grants, were discussed at some length, and the Secretary was instructed to send a telegram to President Franklin D.

Roosevelt asking for an immediate investigation of the situation, and the following telegram was forwarded to the President:

Bismarck, North Dakota
August 28, 1937

President Franklin D. Roosevelt
Washington, D. C.

The State Water Conservation Commission has been requested to appeal to you to order an immediate investigation as to the cause of constant and exasperating delay in checks issued by Lincoln, Nebraska office of the Resettlement Administration. Stop No checks have been received in North Dakota since July Fifth. Stop Farmers depend on these small checks for a very meager existence and any delay in receiving them causes great distress.

North Dakota State Water Conservation Commission

By

Secretary

The Governor asked the Commissioners to remain in session and work with the State Welfare Board and other agencies in connection with the solution of the relief problem. It was decided to ask Mr. Dodge of the Resettlement Administration and Mr. Willson of the State Welfare Board to meet with the Commission at 2 P. M.

At 12:30 P. M., it was moved by Comm. Olson, seconded by Comm. Engen, that we adjourn until 2 P. M. Motion carried, all Commissioners voting aye.

Pursuant to adjournment, the Commission reconvened at 2 P. M., August 28, with all Commissioners present.

The Secretary reported that Mr. Dodge and Mr. Willson could not meet with the Board on account of their absence from the City.

Miss Clara Hjerp, representing the State Welfare Board, read statistical information gathered by the State Welfare Board showing the amounts received by farmers from the Resettlement Administration and which proved to be exceedingly low in numerous instances, and she also stated that no grant checks had been received in the State since July 5. The figures presented as compiled by the State Welfare Board were very convincing and left no doubt that a very bad situation exists. The Governor and all members of the Board engaged in a general discussion as to the best means of correcting the existing situation.

It was suggested that a telegram be sent to Congressman Usher L. Burdick, requesting that he check up on the situation. Comm. Simons prepared the following telegram which was sent:

Bismarck, N. Dak.
August 28, 1937

Congressman Usher L. Burdick,
Washington, D. C.

Desperate condition of farmers in northwestern North Dakota requires you immediately contact Mr. Milo Perkins of Resettlement Administration. Stop Delay of Resettlement checks causing untold suffering and only agency apparently able to finance proper

assistance is Resettlement Administration Stop Would urge that you contact the President and obtain all the possible support for immediate investigation and results. Stop You are advised that no Resettlement checks have been issued and distributed in North Dakota since July Fifth Stop Please advise on results from your interviews.

North Dakota State Water Conservation Commission
Governor William Langer, Chairman
D. J. Beasey, Secretary

Comm. Holt suggested that telegrams also be sent to Harry Hopkins, WPA Administrator, Dr. W. W. Alexander and Milo Perkins, Director of Resettlement, and he dictated the following telegram, which was forwarded to the officials named.

Our information is that no Resettlement checks have been distributed in North Dakota since July 5. Stop Please advise reason for this delay Stop We wish to urge again need for careful canvass of situation looking toward increased grants through the winter months and inclusion of additional farm families on the verge of starvation Stop Confidential reports of State Resettlement Administration show nineteen thousand four hundred fifty seven families now on relief rolls Stop Expect twenty three thousand four hundred thirty four families by October First and thirty three thousand two hundred seventy five families at peak of relief load Stop Please advise why the delay in sending out relief checks and the prospect for much needed increase in grants.

North Dakota Water Conservation Commission
Governor William Langer, Chairman
D. J. Beakey, Secretary

Comm. Holt suggested that the telegrams be followed up by a personal telephone call to the President from the Governor asking for an increase in relief checks and to find out the reason for the delay in receiving them.

No further business appearing, it was moved by Comm. Engen, seconded by Comm. Olson, that the Commission adjourn to the call of the Chairman. The motion carried, all Commissioners voting aye.

Respectfully submitted,

D. J. Beakey
D. J. Beakey, Secretary

APPROVED BY:

Harry Holt

Chairman

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REPORT ON WASHINGTON TRIP
Letter from Henry Helt, Vice Chairman

August 26, 1937

REPORT REGARDING WASHINGTON TRIP

Honorable William Langer, Chairman,
and Members of the State Water Conservation Commission,
Bismarck, North Dakota

Dear Governor Langer and Gentlemen:

In accordance with the motion passed by the Commission, the writer and Technical Advisor, Mr. Knapp, together with Robert Cummins, made ready to leave for Washington but due to our inability to arrange for interviews in advance we were held up a few days before departing from the state.

The committee appointed by the Commission was further enlarged by the appointment of two other Commissioners, Mr. Kenneth Simons and Mr. Frank Whitney, who accompanied the group to Washington.

In view of the fact that the main purpose of this trip was to secure a work program on irrigation projects in western North Dakota it was decided that Mr. Kenneth Simons, member of the Commission from western North Dakota, be the spokesman and present the project to the various federal agencies in Washington.

I am taking it for granted that Mr. Simons is preparing a detailed report and the purpose of my report is that of giving a general resume.

Mr. Robert Cummins proved very helpful in arranging for interviews with the various departmental heads and assistants.

It became very apparent to the writer after the interview with Mr. Wilson, Under Secretary of Agriculture, that he has been vested with authority of coordinating the efforts of all the various federal agencies in these relief setups. It was further evident that Mr. Wilson had his own ideas as to the proper method of handling the situation in North Dakota. I wish to emphasize that Mr. Wilson seemed inclined to be strictly in favor of a Soil Conservation program on the individual farms in western North Dakota, employing on these farms the farmers themselves.

There also seemed to the writer a possibility of a cooperative working agreement between whatever agency Mr. Wilson designates to handle this work and the State Water Conservation Commission for the resettling of farmers in western North Dakota on irrigation projects. This, in my opinion, is most encouraging as it fits into the long term plan of the Commission in the matter of irrigation, and offers an opportunity for employment of a much larger number of farmers in need of assistance.

My personal impression of the WPA assistance that can be given us will be strictly limited to projects within short distance of the availability of relief labor. No doubt many useful projects can be promoted and built through this agency with the State Water Conservation Commission sponsoring such projects.

Finally, I feel that in the interest of irrigation in western North Dakota the very best contacts and source of assistance that we can have in Washington is through Mr. Page

of the Bureau of Reclamation.

Recommendation: I would recommend that the Commission immediately offer to Mr. Wilson, the Under Secretary of Agriculture, our fullest cooperation in his plan for the needy farmers of western North Dakota.

I regret exceedingly that the Committee was not able to come back and report positive action on some definite project, but feel that the contacts made and the interviews had will prove beneficial in the long run for our program.

Respectfully submitted,

STATE WATER CONSERVATION COMMISSION

Henry Falk
Vice Chairman

HE:MK

COPY OF REPORT

Of Chief Engineer, E. J. Thomas

Bismarck, North Dakota
August 28th, 1937

To the State Water Conservation Commission

Gentlemen:

This is my report with regard to activities of the engineering department of the Commission.

The following are statements relative to the present status of applications, surveys, plans and construction of projects.

We have received to date 165 applications for preliminary investigation, of these, all but one have been investigated.

Of the projects investigated, 64 have been found to be not feasible or to have been placed in an inactive file either at the landowners request or because it is deemed best to be developed as a part of a larger unit.

Ninety one applications have been approved by the Commission. of this number 68 contracts have been signed. Detailed surveys have been completed on 65 projects and designs have been made for 60 projects.

Equipment has been ordered for 33 projects and such equipment has been delivered for 29 of these projects. Twenty five projects are now in operation using equipment purchased by the Commission. Plans are in preparation for five projects on which the applicants is using his own equipment.

It will be of interest to the Commission to know that one of the projects approved for construction is a well irrigation project on the farm of Mr. Arthur Maxwell, living northwest of Turtle Lake, North Dakota. Investigations indicate that extensive areas in this vicinity can be developed by well irrigation. The Technical Advisor and the Chief Engineer of the Beard have made some investigations with respect to possible irrigation development from shallow wells in other parts of the State. A project has been approved at the State Insane Asylum at Jamestown in connection with which it is proposed to irrigate from wells.

The engineering staff of the Commission has kept in touch with the landowners of the Bismarck and Parkhill addition projects. Complete plans for the irrigation of the Parkhill addition project have been made. Field investigations have been made of the Bismarck project to determine the capacity of the main canal together with profiles and estimates. It now appears hopeful that the more feasible plan of developing these two projects by the use of a common pumping station and main canal can be arranged. If the plans as now proposed are adapted, the pumping station would be located just south of the highway bridge. It is contemplated that the main canal from the pumping station to a point opposite the Kiwanis Park would be constructed by WPA labor.

Investigations have been made and estimates prepared by Mr. J. J. Walsh, Irrigation Engineer for the Commission, for the reconstruction and enlargement of the lower Cartwright or Jacobson project. These estimates are on the basis of including all of the land in the river bend, about 1300 acres in area within the project and constructing a permanent intake

at the south end of the project. Attached hereto is a copy of such estimate.

The Chief Engineer as State Engineer, has entered into a cooperative agreement with the U. S. Geological Survey for stream gaging. The sum of one thousand (\$1000.00) dollars per year for a two year period is being furnished by the State Engineer's office for stream gaging in the State. This sum is being matched on a 50-50 basis by the U. S. Geological Survey.

Gaging stations will be located at Minot, Sunny, Hazen, Jamestown, Fairmount, Abercrombie, West Fargo, Hillsboro, Minto, Grafton and Devils Lake. In addition to these stations, the Department of State of the Federal Government is furnishing funds for stream gaging on international streams, including the Red River and the Souris River. Stream gaging records of the Missouri River are being made by the War Department. A plan has been worked out whereby four additional stations are being established on the Souris (Mouse River), the cooperative funds being furnished by the U. S. Biological Survey.

Preliminary investigations with respect to irrigation and dam construction have been made along the White Earth Creek at White Earth and at Powers Lake. Mr. Knapp and myself will be glad to discuss these, and other contemplated developments, with you.

Respectfully submitted,

E. J. Thomas
Chief Engineer

EJT:pm

Engineering Report
Jay Grantier Project
Banks, North Dakota
July 31, 1937

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION
Attention: E. J. Thomas, Chief Engineer

This project was inspected on July 24, 1937, and surveys were made to determine the area of the reservoir dam that is washed out. From the measurements it was found that approximately 8,000 cubic yards of earth would be required to rebuild the embankment back to the section left standing. To complete and raise the entire length of the dam, it will be necessary to include another 7000 cubic yards making a total of 15,000 yards to rebuild and raise the fill to the original design.

In my estimate I have used the quantities shown on the design plan, for the riprapping, masonry and concrete. The unit costs are average prices, but may vary, due to length of haul for riprap rock, amount available, and the same holds true for sand and gravel. The spillway section is partly excavated and the waste material was used in the dam, leaving the uncompleted part below the spillway crest, which includes the excavation to the Creek below. The cost figures shown here are low, a large amount of this excavation will require hand labor for finishing.

The Diversion Dam is shown under a separate estimate. Due to the heavy runoff at various periods, especially during the present month of July, where the creek was funning to full capacity, plans and estimates were made for a structure the full width of the Creek with removable flashboard control lumber and riprap make the two large items. If rock suitable and in large quantities could be found close to the work, this item of cost would be reduced materially. The main ditch headgate is built, but flashboards for regulations of flow will be necessary. More excavation between headgate and creek is required before this part is complete.

Under the main ditch additional work covering enlargement to discharge larger heads of water is necessary, if the full use of short periods of high water is taken advantage of, also to carry the extra sidehill runoff from above the ditch. There is one large draw the ditch crosses. This section was washed out leaving a wide gap. Mr. Grantier has had a great deal of trouble making this part of the ditch hold, first by filling over a small pipe and second with building a timber flume.

Estimates show reconstructing the fill and ponding the water on the upper side, using a spillway to carry off the excess flow, and an alternate plan for constructing a metal flume over the draw. In either plan the spillway should be constructed.

The construction necessary for the completion of the reservoir dam and spillway adequate to store and discharge the flood water of this stream will require specifications for the compaction of fill material, proper bonding to the present embankment, placing of riprap and construction of the Spillway to the plans. This work should be done under competent engineering supervision.

J. J. Walsh
Irrigation Engineer

Jay Grantier, Banks, N. D.
240 Acres Irrigable Land

App. No. 71
7-31-37

Estimated Cost of Construction

Storage Reservoir Capacity 177 Acre-feet.

Estimated earth fill to complete washed out section to top of present fill	8000 c.y. at 15¢	\$ 1200.00
Estimated additional earth fill to raise present embankment 3 feet to ultimate section	7000 c.y. at 20¢	1400.00
Riprap (Original estimate) 9" thick	1320 C.Y. at \$4.00	5280.00
Hauling and placing		
Masonry (" ") 12" tick	316 c.y. at \$10.00	3160.00
cement, rock, hauling & labor		
Concrete " ")	7.5 c.y. at \$20.00	150.00
Spillway, excavation, Estimated	10,000 c.y. at 15¢	1500.00
(original estimate 16,800 c.y.)		
Partly excavated		\$12,690.00
Engineering and inspection + 05%		634.50
		<u>\$13,324.50</u>

Diversion Dam for Main Ditch

Lumber	4,624 F.B.M. at \$50.00	\$231.20
Labor	" at \$20.00	92.50
Hardware		10.00
Riprap	60 c.y. at \$ 4.00	240.00
Excavation & backfill	50 c.y. at 30¢	45.00
		<u>\$618.70</u>
		618.70

Enlargment if Main Ditch and repairing breaks.

Repairing & backfilling washedout section		
800 c.y. at 15¢		120.00
Lining 200 lin. ft. ditch with clay		
160 c.y. at 25¢		40.00
Spillway-1600 F.B.M. in place @ \$70 per M		112.00
Riprap 20 c.y. at \$5.00		110.00
Excavation & backfill 40 C.y. at 25¢		10.00

Main ditch, enlargement, including excavation and structures

Excav. 1500 c.y. at 15¢	225.00
Culvert 30' 30" at \$3.25	97.50
Replacing drop	50.00
	<u>\$764.50</u>
	764.50
	<u>\$1384.20</u>

Alternate over washed section

60' - Metal flume in place at \$4.00	\$240.00
Back filling 200 c.y. at 25¢	50.00
	<u>\$290.00</u>

SIOUX MUTUAL AID CORPORATION
CARTWRIGHT, N. DAKOTA

<u>PUMPING PLANT, permanent site</u>			
Intake Well Sheet Piling			
1470 Sq. feet @ 23 Lbs. per Sq. Ft. - 33810 Lbs. @ 5¢		\$1690.50	
35-30' Sheet piles - 1050 Lin. feet @ 50¢		525.00	
Gate - estimated		100.00	
Trash rock 500' steel @ 10¢		50.00	
Concrete 42 c.y. @ \$20.00		840.00	
Excavation & back fill			
Excavation 90 c.y. @ 25¢		22.50	
Backfill, rock & gravel - 50¢ - 50¢		25.00	
		<u>\$3253.00</u>	
 <u>PUMP HOUSE</u>			
Concrete 43 c.y. @ \$20.00	\$860.00		
Accessories	<u>100.00</u>		
	\$960.00	960.00	
 <u>PUMPS & MOTORS</u>			
2 - 6000 9 P. M. Pumps @ \$800.	1600.00		
2 - 60 H. P. Motors @ \$1000.	<u>2000.00</u>	3600.00	
		<u>\$7413.00</u>	
 <u>PIPE, VALVES, REDUCERS, ELBOWS & TEE</u>			
		1750.00	
 <u>TRANSMISSION LINE - 3 miles @ \$750.00</u>			
Substation Transformer, etc.		2250.00	
		<u>1000.00</u>	
		<u>\$12,813.00</u>	\$12,813.00
 <u>STRUCTURES & EXCAVATION LATERAL DISTRIBUTION SYSTEM</u>			
<u>Structures:</u>			
Pipe outlet structure concrete 5 c.y. @ \$20.00 - \$100			
Paving 5 c.y. @ 10.00 - 50		150.00	
1 - Wasteway Concrete & Paving		100.00	
2 - " Timber @ \$60.00		120.00	
2 - Drops @ \$60.00		120.00	
1 - Check gate @ \$50.00		50.00	
16 - " " @ \$35.00		560.00	
35 - Farm Turnouts @ \$25.00		875.00	
6 - Culverts - Timber @ \$40.00		240.00	
		<u>\$2215.00</u>	
 <u>EXCAVATION</u>			
Main Ditch 6000 c.y. @ 15¢	900.00		
Laterals 9000 c.y. @ 15¢	<u>1350.00</u>	<u>2250.00</u>	
Engineering & Contingencies plus 10 %			<u>4,465.00</u>
1300 acres at \$14.62 per acre			\$ 17,278.00
For Lateral System \$3.44 per acre			<u>1,727.80</u>
			\$ 19,005.80

LIST OF PROPOSED WATER CONSERVATION PROJECTS IN NORTH DAKOTA
WITH ESTIMATE OF COST AND LABOR REQUIRED FOR PROJECTS

Name of Project	Estimated Construction Cost	Labor Required (Number of Men for a 9-month Period)
1.- Cartwright Irrigation	\$ 80,000	89
2.- Sidney Irrigation	200,000	222
3.- Lewis & Clark Bridge Irrigation	250,000	278
4.- Buford-Trenton Irrigation	800,000	1000
5.- Bowman Irrigation	687,633.75	763
6.- Heart River Irrigation	828,548	920
7.- Marmarth Irrigation	400,000	445
8.-Dickinson Dam	200,000	222
9.- Bismarck Irrigation	75,000	83
10.-Senshel Valley	75,000	83
11.-Walhalla Dam	1,000,000	1120
12.-Apple Creek	300,000	334
13.-Wyndmere	10,000	11
14.-Golden Lake (Steele County)	25,000	28
15.-Tongue River - Cavalier	100,000	111
16.-Eaton Project	10,000	11
17.-Revetment Work, Bismarck	100,000	111
18.-Extension Burlington	20,000	22
19.-Hanlon - Sanish	12,000	13
20.-Rundle - New England	12,000	13
21.-Fayette Reservoir	60,000	67
22.-Hardy - Burnstad	30,000	33
23.-Stewart - Bowman	16,000	18
24.-Lefor Dam	5,000	5

LIST OF PROPOSED WATER CONSERVATION PROJECTS IN NORTH DAKOTA
WITH ESTIMATE OF COST AND LABOR REQUIRED FOR PROJECTS.

#2 Cont'd.

Name of Project	Estimated Construction Cost	Labor Required (Number of Men for a 9-month Period)
25.-Shirk Dam Repair	6,000	7
26.-Penitentiary	6,000	7
27.-Painted Woods	400,000	445
28.-Revetment Work - Fairview	60,000	67
29.-Grafton	60,000	67
30.-State Hospital - Jamestown	60,000	67
31.-Bathgate	60,000	67
32.-Scenic Highway (Road Project)	300,000	333
33.-Highway No. 50 (Road Project)	250,000	277
34.-Divide County-wide Project	100,000	111
35.-East and Turtle Mt. Lake Improvement	50,000	55
36.-West end Turtle Mt. Lake Improvement	50,000	55
37.-Hannaford	20,000	22
38.-Schmidt Revetment	100,000	111
39.-Brantford Project	20,000	22
40.-Johnson Project (Twp. 143-Rge. 78)	10,000	11
41.-Foxholm Dam	10,000	11
42.-Williston	<u>100,000</u>	<u>111</u>
TOTALS	\$7,058,181.75	7,848

COPY OF

LETTER FROM M. L. Wilson, Acting Secretary
DEPARTMENT OF AGRICULTURE
In reply to telegram sent by the Commission

September 17, 1937

Mr. D. J. Beakey, Secretary
North Dakota Water Conservation Commission
Bismarck, North Dakota

Dear Mr. Beakey:

The President has brought to my attention your wire of August 28, dealing with the delay experienced by farmers in North Dakota in the receipt of checks through the regional office of the Farm Security Administration at Lincoln, Nebraska.

In some areas in North Dakota, particularly in the eastern part of the state because of improved crop conditions it has been possible to make large reductions in the number of grants being made. Many of these families received their last grants during July because a survey of the individual families indicated that they were no longer in need of this type of assistance.

In the western part of the state, however, grants have not only been made during July and August but the total number has increased considerably over that of last winter. This action on the part of our field office was in recognition of the need accentuated by drought conditions. This type of assistance will continue to be available to destitute farm families in this section of the state to the full extent of funds available.

With regard to those grant clients who were dropped from our rolls, an individual investigation was made of each case and this type of assistance was only discontinued when it was specifically determined that the need no longer existed. Any farmer wishing to make application for aid under the program of the Farm Security Administration should get in touch with the County Rehabilitation Supervisor who will ascertain his eligibility for the desired assistance.

We trust this information will clarify any misunderstanding.

Sincerely yours,

M. L. Wilson
Acting Secretary