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MINUTES OF A MEETING

Of The

STATE WATER CONSERVATION COMMISSION

Held June 14 and 15, 1938, in the Governor's Conference Room at Bismarck, North Dakota

A monthly meeting of the State Water Conservation Commission was called to order at 10 A.M., Tuesday, June 14 in the Governor's Conference Room by Vice Chairman Henry Holt.

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

Moved by Comm. Engen, seconded by Comm. Olson, that inasmuch as typewritten copies of the minutes of the last meeting had been sent to each member of the Commission and no errors being noted, that the minutes stand approved as written. The motion carried, all Commissioners voting aye.

Mr. George J. Baker, Acting Director of Extension of the Agricultural College, attended the meeting by request of the Commissioners to discuss the matter of cooperative publicity in connection with the work of William H. Farmer, Extension Irrigationist. The Commissioners requested that all publicity given out in connection with irrigation work state, "The North Dakota Agricultural College in cooperation with the State Water Conservation Commission" or vice versa. The Commissioners stated that they were willing at all times to work in cooperation and harmony with the Agricultural College and wished the public to know that the two agencies were cooperating. Mr. Baker stated that he would take the matter up with Mr. Farmer, Extension Irrigationist, employed jointly by the two agencies and with the Agricultural College's publicity agent.

The Secretary read the following list of suggestions for cooperative experiments in irrigation in North Dakota prepared by Mr. M. R. Lewis of the Bureau of Agricultural Engineering:

Suggestions for Cooperative Experiments in Irrigation in North Dakota

Location

Headquarters of technical staff Field Station.
Principal experimental field, State Training School, Mandan
Supplementary experimental fields, State Penitentiary and different private farms.

Cooperation

Experiment Station of North Dakota Agricultural College
Pay salary and field expense of assistant irrigation engineer at estimated cost of \$4500 per year.

Bureau of Agricultural Engineering of United States Dept. of Agriculture
Pay salary and field expense of associate irrigation engineer (one half time to be devoted to this work) estimated cost of \$3000 per year.

Bureau of Plant Industry of North Dakota Dept. of Agriculture
Provide office and laboratory space and clerical and stenographic facilities at estimated cost of \$1000 per year.

State Training School of North Dakota
Provide 20 acres of land, farm labor, supervision, equipment and power

(farm & pumping) at estimated cost of \$2000 per year. (It is expected that the crop returns will fully reimburse the school for this expense.)

State Water Conservation Commission of North Dakota
Provide pumping equipment, pipe and irrigation structures for irrigation of 20 acres at estimated cost of \$1000.

Studies

Duty of Water

Time and amount of Irrigation

- Corn
- Alfalfa
- Potatoes
- Sudan Grass
- Cane
- Sweet Clover

Fall and early spring irrigation (Flood)

- Alfalfa
- Corn

Quality of Water

Effect of Missouri River silt

- Permeability
- Texture
- Fertility

Effect of saline and alkali waters

(By observation on private farms in different sections of state).

Cost and Returns

Cooperative observations on private farms.

Correlative Studies

The Bureau of Plant Industry and the State Agencies might want to add some work on crops adaptable to irrigation in the area. If so, the area farmed might be doubled with estimated costs of Exp. Sta. \$5500, B.A.E. \$3000, S.T.S. \$4000, SWC \$1500.

It was moved by Comm. Engen, seconded by Comm. Dahl, that the suggestions as outlined by Mr. M. R. Lewis be approved by the Commission and included in the minutes of this meeting. The roll was called, the motion carried, all Commissioners voting aye.

At 12 noon the Vice Chairman, Henry Holt, declared a recess until 1 P. M.

The meeting was called to order at 1 P. M. by Vice Chairman Henry Holt.

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

The Secretary read the following report on the Lewis and Clark Project made by H. F. McColly, Agricultural Engineer:

LEWIS AND CLARK IRRIGATION PROJECT

REPORT ON CONFERENCE AND INSPECTION
H. F. McColly, Agricultural Engineer
North Dakota Agricultural College
May 19 to 21, 1938

Purpose:

To review plans prepared for the project and inspect the area involved; and to meet with members and officials of the North Dakota Water Conservation Commission, the North Dakota Rural Rehabilitation Corporation, Lewis and Clark Irrigation District and Works Progress Administration.

General Comments:

The status of the project plans, easements, rights-of-way, land purchases; and the progress of the work on the project were fully considered. All recommendations given in this report consider the concurrence of all parties involved in what is believed to be the best procedure and the most economical development for a successful project.

Recommendations:

In view of the situations apparent in the project and the outcome of many other projects the following recommendations are offered:

- First, all land purchases, rights-of-way, easements, etc. should be immediately cleared as litigations such as these become increasingly difficult as a project is developed and individuals realize their importance in the functioning of a project.
- Second, that the settling basin should be omitted due to the possibility of soaking up the soil adjacent to the river thereby softening it so that the river bank finally weakens and even fails.
- Third, there is a possibility that the water from near the stream bed carries more silt than should be pumped into the system, and of course finally applied to the farm lands. Data has been secured on the silt load of these waters at various levels and a study should be made of these data. It may be desirable to have the intake near the surface thereby pumping only the lighter silts rather than the heavier sands near the stream bed. The formation of the bottomlands stresses the necessity for this precaution. The sand deposits have formed areas of lands rated non-irrigable, where the other silts have built the highly desirable irrigable lands.
- Fourth, the main canal should be concrete lined for a distance of about 200 feet from the pumping plant to prevent any seepage into the soil near the pumping plant thereby weakening the stream banks. Seepage beyond the 200 foot distance will seek the natural water table levels and cause no difficulty.
- Fifth, that low areas should have outlet drains where such areas would be objectionable if stagnation were allowed. This is especially important between the dike and the main canal, and in the slough where the main canal is diked across it in Section 10.
- Sixth, that Lateral A should continue only to the road to Williston or slightly beyond it by means of a small syphon. This would avoid crossing and re-crossing the road running along the foot of the bluffs where erosion and fillin

of the ditch would cause considerable upkeep. The main canal across Sections 8, 9 and 10 could be enlarged and feed across the slough by diking (in Section 10) to care for lands in Section 2.

Seventh, that electric power should be used for pumping due to the fact that settlers will eventually want to electrify their farmsteads. All farmers hear of rural electrification and are anxious to get it if at all possible. Since the Fort Peck power bill has been signed by the President, and it has been designated primarily for irrigation purposes, it appears that such power will be brought into the area along the Missouri River in the very near future, probably within the next two or three years. The farmers in the District have requested electricity.

The cost of pumping by electricity have been computed as \$1.78 per acre per year. This is figured on a 4 mills basis with \$6.00 per H.P. in connection charge.

Pumping with natural gas engines has been computed to cost \$1.51 per acre per year. This is 27 cents less than by electricity. However, the Fort Peck source of power will mean a reduction in the connection charge, or even its elimination. Besides this, a rural electrification project will result when electricity becomes available, and it is felt that the future trend would be to change to electricity. It is believed that all trends point to the desirableness of electricity as a source of power.

Eighth, the lands purchased by the Rehabilitation Corporation should be rough leveled before resale as the individual purchaser will not get the leveling done himself and pay out on the project. He will not have the proper equipment and supervision. All lands should be ready for irrigation with a minimum of preparation by homesteaders. The plant is built on the maximum development and cannot be expected to pay out of the lands are not ready for several years. In short, new irrigation farmers will be too busy irrigating with one hand and trying to prepare land with the other. Many irrigation projects have failed because a system has been built, and the land not ready and never did get ready.

Conclusions:

As mentioned before, all recommendations are made considering the best interests of all involved agencies, and for building a project that will succeed.

SIGNED: _____
H. F. McColly
Agricultural Engineer
North Dakota Agricultural College
Fargo, North Dakota
May 23, 1938

It was moved by Comm. Dahl, seconded by Comm. Engen, that the report be accepted and be included in the minutes of this meeting. The motion carried, all Commissioners voting aye.

The Secretary reported the receipt, under date of June 2, of a copy of Addendum No. 1 to the report on the Comprehensive Water Plan Proposed in the Report of the Interstate Committee on the Red River of the North Drainage Basin. The report was ordered placed on file.

Chief Engineer E. J. Thomas submitted a report covering the conference with War Department Engineers at Omaha, Kansas City and St. Paul, May 10-13, inclusive:

To: Missouri River Diversion Committee of
State Water Conservation Commission
Henry Holt, Ch. - J. A. Engen - G. C. Olson

Gentlemen:

This is my report to your Committee on visits to Omaha, Kansas City and St. Paul, in connection with a report by the War Department on the State Water Conservation Commission plan of the Missouri River Diversion Project.

On these visits I accompanied Mr. Geo. S. Knapp, Technical Advisor of the State Water Conservation Commission, and Mr. M. D. Hollis, State Sanitary Engineer. Both Mr. Knapp and Mr. Hollis have made reports which very fully record our activities on these trips and set forth the main features, estimates of cost, etc., of the War Department report. Their reports also relate statements made during discussions with War Department Engineers. In view of the fact that much of our activities on this trip and reports on conferences have already been made by these two representatives of the Commission, I will merely supplement what they have already reported. It was originally planned that Col. Phillip Fleming, District Engineer of the St. Paul office of the War Department, would come to Kansas City and be present at our conference with Colonel Sturdevant. Because of flood conditions on the upper Missouri River he was unable to come to Kansas City. It was then decided that Mr. Hollis and myself would call on Colonel Fleming when we returned to St. Paul and discuss with him matters pertaining to the adequacy of the Red River Plan for the needs of the Red River Basin. We met with Colonel Fleming at St. Paul on the morning of May 14. In our conversation with Colonel Fleming, reference was first made to our visits at the War Department offices in Omaha and Kansas City. We told him that Colonel Sturdevant had informed us that he was to review the Missouri River Diversion report prepared by the District Engineer at Omaha and to make such comments as he saw fit in regard thereto. Colonel Fleming then stated that his review and comments on the Missouri River Diversion report would necessarily be limited to statements therein and to that portion of the project affecting the St. Paul district of the War Department. He then stated that his comments to Colonel Sturdevant on the report would definitely point out that the exclusion of the Ottertail Basin from the operation of the Red River program, would render such program impractical, since approximately 70% of the water for such Red River program was to be derived from that source. The matter of stream flow requirements during critical stream periods was discussed with Mr. Lyon and Mr. Christianson of Colonel Fleming's staff. Mr. Lyon stated that their investigation into methods of computing stream flow requirements under ice coverage conditions had clearly indicated the discrepancy of basing computations on a straight-line curve of oxygen depletion. Further, that recent information obtained by the Army Engineers has shown that the computations as submitted by the Water Conservation Commission on stream flow requirements apparently were the most accurate approach that could be arrived at without actual field and laboratory investigations of the specific stream in question. Mr. Hollis agrees that the above statements were as made by Colonel Fleming and members of his staff. On May 23, Colonel W. M. Hoge of Omaha was at Bismarck for a meeting of federal and state agencies. At that time I talked to him in regard to Missouri River Diversion. He stated that since our conference with him at Omaha, he had again read the Red River compact and Congressional authorization of same. He said that the provision in the compact providing for approval of projects by state and county officials of Minnesota before being undertaken by the Tri-State Waters Committee, was more objectionable than is the exclusion of the Ottertail Basin. I have reported my conversation with Colonel Hoge to Mr. Knapp who will stress this objection in his report to the Commission. We have a level party in the field taking levels for the James River Lateral. A record of this survey will be sent to Mr. Knapp immediately upon the work being completed. Indications from information obtained by the uncompleted

field survey indicate that the James River Lateral can be constructed at a lower cost than that shown by the Army Engineer's report. I am sending a copy of this report to Mr. Knapp.

Respectfully submitted,
E. J. THOMAS, CHIEF ENGINEER

Vice Chairman Holt presented the following condensed report of the Tri-State Committee which conferred with Federal authorities in Washington, D. C., May 15 to 20, inclusive:

SUMMARY REPORT MADE TO GOVERNOR ELMAR A. BENSON BY
E. E. HOWARD AND DEAN HOLM ON SATURDAY, MAY 21, 1938

Delegation to Washington---Col. Philip B. Fleming, District Engineer, U. S. Engineers Office; Colonel E. E. Howard, Member, Tri-State Waters Commission; E. V. Willard, Chief Engineer, Minnesota Department of Conservation; E. J. Thomas, State Engineer, North Dakota; Clair Roddewig, Attorney General, South Dakota; Dean Holm, Executive Secretary, Tri-State Waters Commission.

Conferences With---Senators and representatives of Minnesota, North Dakota, South Dakota and Chairman of the Flood Control Committee. Also representatives of the Works Progress Administration, Public Works Administration, Division of Irrigation of the Department of the Interior, National Resources Committee.

Projects Discussed---Lake Traverse, Bois de Sioux, Red Lake River, Roseau River, Pembina River, Lac qui Parle.

Federal Legislation---H. F. 10618, which was up for consideration Thursday, May 19, 1938, provides for a liberalization of the Flood Control Act of 1936. The states, with one or two exceptions have been unable to meet the sponsor's contribution. This bill provides for a refund of 70% of the cost of land acquisitions, easements, rights-of-way, etc., and a number of additional surveys for flood control. An amendment providing for the Red Lake River and the Pembina River Flood Control Surveys was adopted before the final passage of the bill by the House Thursday afternoon. This bill applied to the Lake Traverse project means that the cost to North Dakota, South Dakota and Minnesota will be reduced by 70%.

Future Possibilities---Furthermore, it is quite possible that 70% of the cost of land acquisition, etc. for the Lac qui Parle project amounting to some \$400,000 will be refunded to the State of Minnesota, which fund should insure the completion of the Lake Traverse, Red Lake River and Roseau River Projects in the immediate future. Certainly work should be started on the Lake Traverse and Red Lake Projects before snow flies and the final surveys of the Roseau River project in Minnesota and the Pembina River project in North Dakota undertaken at an early date.

Dean Holm, Executive Secretary
Consultant

May 21, 1938

Vice Chairman Henry Holt presented the following brief summary of observations made by E. V. Willard, Chief Engineer, Minnesota Department of Conservation and Dean Holm, Executive Secretary, Tri-State Waters Commission, on an inspection trip of the Red Lake Area, including Thief Lake and Mud Lake, June 2, 3, 4, 1938:

"While this inspection of the Red Lake area required three days, only one day was spent in the Red Lake Area itself, the other two days being spent in travel.

"The purpose of the trip was two-fold----first, to obtain the latest information and the most up-to-date records of water levels, precipitation, etc., for the comprehensive report which is now being prepared by Mr. Willard for submission to Harold Ickes, Secretary of the

- Interior; second, to obtain definite information on the condition of the roads and make preliminary arrangements for the proposed inspection trip of representatives of the Water Resources Committee of the National Resources Committee the latter part of the month.

Contacts were made with the following:---William Carleon, Game Warden, Waskish; R. H. Bitney, Supt., Red Lake Indian Reservation, Redby; Martin Kjalberg, Road Engineer, Red Lake; J. Maughs Brown, District Highway Engineer, U. S. Indian Service, Minneapolis; R. J. Trier, Asst. District Engineer, Minneapolis; Joe M. Madsen, C. C. C. Camp Supt., Middle River; E.L. Tungseth, State Senator, Ada; Morris Bye, President, Red Lake River Development Assoc., Thief River Falls; W. E. Dahlquist, Thief River Falls; Larry Rullien, Sec., Civic and Commerce Assoc., Thief River Falls; Henry Holt, Chairman, Tri-State Waters Commission, Grand Forks, N.D.

At Waskish, the lake level on the evening of June 2 was 1175.9 and the following morning it was 1176.05. The difference was due to the increase in velocity of the wind. This water level is some 3 or 4 feet above the low water level which prevailed a few years ago. In all of the basements of the buildings at Waskish there was from two to six inches of water. At Redby, the elevation of the lake level at the control works was 1175.85 and it was computed that approximately 75-second feet of water were flowing over the dam on June 3.

Various phases of the problem were discussed with Mr. Bitney, including the results of interviews held in Washington, recently, and it would seem that all existing differences, regarding the control of Red Lake, with the Bureau of Indian Affairs should be ironed out at an early date.

The elevation of water at Mud Lake was 1140 feet. The entire area included in the Federal Game Preserve was more or less under water. It is quite possible that the average depth of water is now five feet, where up to a year ago there was no water at all. Water was flowing over the spillways in the levees which had been built up to control the water level of Mud Lake. Water was flowing out of the lake through an opening made by the farmers of the vicinity. This water was flowing into Judicial Drainage Ditch No. 11.

A little plowing has been done on the drier lands, but very little or no seeding has been done.

No attempt is being made to prepare a complete report of the trip for the reason that all of the observations made will be incorporated in the report which Mr. Willard is preparing, and which, according to present plans, will be submitted to the Tri-State Waters Commission, which, in turn, will submit it to Harold Ickes, Secretary of the Interior.

6-10-38

DEAN HOLM, EXECUTIVE SECRETARY

Moved by Comm. Engen, seconded by Comm. Dahl, that the foregoing reports be accepted and made a part of the minutes of this meeting. The motion carried, all Commissioners voting aye.

Moved by Comm. Olson, seconded by Comm. Dahl, that the following resolution be adopted and a copy of it sent to the State Health Department:

WHEREAS, it is of the utmost importance in the interests of public health and welfare that a stream pollution study of North Dakota streams be immediately made, and

WHEREAS, there are no state funds available for stream pollution study,

NOW, THEREFORE, BE IT RESOLVED, that the State Water Conservation Commission join with the State Health Department in making request to the United States Public Health Service in an effort to secure the allocation of sufficient funds from sources now available to undertake and conduct a comprehensive study of stream pollution as it affects North Dakota streams.

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

Technical Advisor George S. Knapp discussed with the Commissioners a report he is now preparing on the Missouri River Diversion Project and which he will submit in writing at a later date.

It was moved by Comm. Engen, seconded by Comm. Dahl, that Technical Advisor Knapp and Chief Engineer Thomas contact and confer with Mr. Gene Mattingly of Jamestown in regard to the Pipestem dam and reservoir. The motion carried, all Commissioners voting aye.

Moved by Comm. Olson, seconded by Comm. Dahl, that Technical Advisor George S. Knapp be requested to review the work of the Commission, projects proposed or underway, and make such suggestions as seem proper to him after such examination. On roll call the motion carried, all Commissioners voting aye.

The Secretary reported that bids had been advertised for the plowing of brush land in the Lewis and Clark Irrigation District and had been opened at 10 A. M., May 12, and that the bid had been awarded to Charles E. Steward of Ray, North Dakota, as the lowest bidder, upon the condition that he furnish a sufficient bond and that under date of May 23, 1938 P. C. Arildson, Clerk of the District Court of McKenzie County had certified that the bond in the sum of \$5,450 was filed in the office of the clerk of the District Court and was approved as to sufficiency.

At 2 P. M. the Secretary stated that bids had been advertised for calling for proposals for furnishing, operating and maintaining equipment for canal and ditch work on the Lewis and Clark Irrigation Project to be opened at this time. Bids were opened and read by the Secretary as follows:

Bid of M. B. Munson, Bismarck, North Dakota

<u>EQUIPMENT</u>	<u>RATE PER HOUR</u>	<u>NO. OF HOURS</u>	<u>COST</u>
12 yard Caryall & Tractor	\$ 8.00	900	\$ 7,200.00
6 yard Caryall & Tractor	5.50	1200	6,600.00
5 tooth Ripper	.25	1200	300.00
Tractor with Operator	3.35	1200	4,020.00
			<u>\$18,120.00</u>
If Operator is not furnished with Tractor #3			17,400.00
12 foot Blade furnished free			
250,000 cubic yards @ 7 $\frac{1}{2}$ ¢ per yard			\$18,125.00

Bid of C. H. Schultz, Towner, North Dakota

12 yard Caryall & Tractor	\$ 8.00	900	\$ 7,650.00
6 yard Caryall & Tractor	7.00	1200	8,400.00
5 tooth Ripper	.50	1200	600.00
Tractor with operator	3.70	1200	4,440.00
			<u>\$21,090.00</u>
If Operator is not furnished with Tractor #3			20,250.00
250,000 cubic yards @ 10¢ per yard			25,000.00

Bismarck Construction Company, Bismarck, North Dakota

12 yard Caryall & Tractor	\$ 8.00	900	\$ 7,650.00
6 yard Caryall & Tractor	6.00	1200	7,200.00
5 tooth Ripper	No Bid		
Tractor with Operator	4.00	1200	4,800.00
			<u>\$19,650.00</u>

No bid on Tractor without Operator
250,000 cubic yards @ 25¢ per yard

62,500.00

Moved by Comm. Engen, seconded by Comm. Whitney that the Contract be awarded to M. B. Munson of Bismarck, who was the lowest bidder, upon the condition that he shall within 15 days enter into a contract and furnish the required bond for the faithful performance of the contract and that the officers of the Commission, in cooperation with the Rural Rehab. Corp., be authorized to enter into such contract with M. B. Munson. On roll call the motion carried, all Commissioners voting aye.

Mr. Ivar Acker, treasurer of the Rural Rehabilitation Corporation, conferred with the Commissioners and suggested the passing of the following resolutions:

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

"BE IT RESOLVED: That the Chairman and Secretary of the Commission are hereby authorized and directed to sell the revenue bonds issued by the State Water Conservation Commission to the North Dakota Rural Rehabilitation Corporation or to any other persons, firm or corporation for the par value thereof in the event that, after notice to bidders has been duly published and advertised, no bids are received by the Secretary offering to purchase such bonds for at least par value, and

"BE IT FURTHER RESOLVED: That the Chairman and Secretary of the Commission are hereby authorized to assign to the purchaser or purchasers of such bonds, as collateral security insuring the payment thereof, mortgages, liens, bonds, as the case may be, made and delivered to the State Water Conservation Commission by any individual, firm, corporation or irrigation district, for whom or for which irrigation works have been established and constructed and services furnished by the Commission."

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

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

"BE IT RESOLVED; That the Chairman and Secretary of the Commission are hereby authorized, with the approval and consent of the owner or owners of land on any irrigation project established or constructed by the Commission, to enter into a contract or contracts for the leveling of such land, construction of lateral ditches thereon and for the performance of any other work suitable and necessary to make the land suitable and available for irrigation."

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

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

"RESOLVED, that the Chairman and Secretary of the Commission are hereby authorized to sell, transfer and convey to the North Dakota Rural Rehabilitation Corporation all the Commission's right, title and interest in or to irrigation works, and at the actual cost thereof, constructed by the Commission on lands owned or acquired by the Corporation."

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

Moved by Comm. Olson, seconded by Comm. Engen, that the Secretary be instructed to make written application to the Rural Rehabilitation Corporation to reimburse the Commission for monies advanced on the Lewis and Clark Irrigation Project and the Grantier Project and deliver revenue bonds to said Corporation for the amount received. On roll call the motion carried, all Commissioners voting aye.

The Secretary presented the financial statement as follows:

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FINANCIAL STATEMENT OF THE STATE WATER COMMISSION
As of May 27, 1938

	<u>Monthly Expenses</u>	<u>To Commission</u>	<u>To Project</u>
Administrative Salaries	\$ 911.67	\$ 12,386.66	
Administrative Mileage & Expense	141.57	1,821.67	
Administrative Office Equipment	18.83	2,798.71	
Administrative Office Supplies	63.50	1,092.57	
Engineering Salaries, Mileage & Expense	2708.40	18,517.55	15,759.26
Engineering Office Equipment	-----	1,906.69	
Engineering Field Equipment	17.04	1,016.42	
Engineering Office Supplies	6.24	775.17	25.41
Maps	67.10	369.53	48.45
Euford-Trenton Irrigation Project	-----	1,000.00	(Nonrepayable)
Commissioners Per Diem	360.00	2,505.00	
Commissioners Mileage & Expense	256.36	1,965.81	
Tri-State Per Diem & Expense	-----	1,180.62	
Washington Trip Per Diem & Expense	-----	1,750.19	
Legal Service	65.33	1,172.50	65.33
Legal Service Mileage & Expense	26.95	105.87	26.95
Printing	-----	394.51	
Tele-phone and Telegraph	45.39	711.94	19.15
Postage and Express		80.77	
Missouri River Diversion	627.21	1,991.09	
Fieldmen (Salaries Mi. & Exp.)	262.54	1,869.15	2,454.28
Projects (Materials & Supplies)	561.23		16,487.02
Preliminary Investigation & Research	58.40	222.92	
Insurance (Compensation)	-----	327.36	
Construction Supplies	-----	898.72	
Funding of Employees	-----		2.50
National Reclamation Association	-----	100.00	
TOTAL EXPENDITURES	\$6,080.96	(B) \$56,961.42	(C) \$34,888.35
Total Expenditures of Commission & Projects as of May 27, 1938		(B & C)	\$91,849.77
Total Appropriation by Legislature	\$112,500.00		
Amount Credited to Comm. as App. Fees	1,255.20		
Amount Credited to Comm. as Benef. R _e t _s .	97.77		
Total of Administrative Appropriation Plus Deposits		(A)	\$113,852.97
Total Expenditures Charged to Commission (Nonrepayable)		(B)	\$ 56,961.42
Actual Balance of Administrative Fund (Disregarding any Project Charges)			\$ 56,891.55
Total Expenditures Charged to Projects (Repayable to Commission)			\$ 34,888.35
BALANCE of Administrative Appropriation Plus Deposits (A) Less Commission (B) and Project Expenditures (C).			\$ 22,003.20

At 5 P. M. the meeting was adjourned until 10 A. M., Wednesday, June 15.

The meeting was called to order at 10 A. M., Wednesday, June 15, 1938. The Secretary called the roll showing Commissioners Holt, Dahl, Engen, Olson and Whitney, present. Governor William Langer and Comm. Simons, absent.

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

"WHEREAS, included in Lines of Action recommended by the Joint State-Federal Committee on the Northern Great Plains, meeting at Bismarck, N. D. on April 18-19, 1938, it was recommended that a State Committee be established by the State Planning Board on which each Federal and State Agency dealing with land and water problems in the state be represented by one member, and

"WHEREAS, upon being requested by the State Planning Board to designate a member for such Committee, the State Water Conservation Commission duly appointed William Langer, Governor of North Dakota and Chairman of the Commission, and

"WHEREAS, because of the necessity of devoting his time to various other duties, Governor Langer has designated the Chief Engineer of the State Water Conservation Commission to act for him as a member of said State Committee and to take care of such committee assignments as might be made to a member of the State Committee representing the State Water Conservation Commission.

"NOW, THEREFORE, BE IT RESOLVED That such designation of the Chief Engineer by the Governor be approved by the Commission and that such approval be certified to the Secretary of the State Committee and to the Chairman of the Committee on Relief and Rehabilitation of said State Committee and that such Chief Engineer present to the Committee on Relief and Rehabilitation and the Water Conservation Section thereof suggested Lines of Action and projects for inclusion in a water conservation program for the state, such Lines of Action and projects to include the following:

"The providing of federal funds for immediate investigation and comprehensive report on all promising irrigation projects in the State.

"The development of large-scale irrigation projects on the Bottom Lands of the Missouri River, the same to be selected with a view to an orderly development along the valley and to their fitting in as a definite part of a general land use plan for the state.

"The development of small-scale irrigation projects throughout the state to tie-in with the land use program.

"The use of funds to be allocated under authority of the Water Facilities Act for the construction of small irrigation projects, small dams, irrigation wells where ground water is available, and other water utilization developments.

"The providing of additional funds for stream gauging.

"Providing of funds for ground water investigations, including the drilling of test wells to determine the availability and accessibility of ground water in connection with land use

"The diverting of waters of the Missouri River in central and eastern North Dakota for the purpose of lake restoration, irrigation, groundwater replenishment, recreation, municipal water supply and sewage dilution.

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"The development of electric power at Ft. Peck for irrigation by pumping onto Missouri River Bottom Lands.

"The establishment of a state Irrigation Experiment Station and Demonstration Irrigation Farm.

"Relief Labor to be used on development and construction of all projects where possible.

"Financial assistance should be given to a program to cap or control artisan wells.

"Continued present arrangement for the North Dakota Rehabilitation Corporation as a land-acquiring agency in the state, authorized to purchase land and develop irrigation works in cooperation with the State Water Conservation Commission.

"The use of existing reservoirs for garden and small scale irrigation projects.

"Legislation which will favorably affect the saleability of State Water Conservation Bonds or means for sale of same to a federal agency.

"The construction of dams for storage and control on such streams as the Knife, Heart and the Cannonball Rivers.

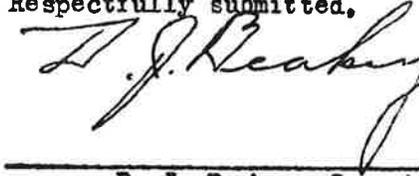
"The Construction of diversion dams on small streams for diverting water onto adjoining hay meadows.

"The construction of low channel dams on small streams to increase extent of natural pondings from which water can be puped onto adjoining lands."

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

No further business appearing, it was moved by Comm. Engen, seconded by Comm. Dahl, that the regular meeting of the Commission to be held at 10 A. M., July 13, be postponed until 10 A. M. Thursday, July 14, The motion carried, all Commissioners voting aye.

Respectfully submitted,



D. J. Beakey, Secretary

APPROVED:



Chairman