

NORTH DAKOTA STATE WATER COMMISSION
 MONTHLY REPORT OF APPROPRIATIONS AS OF DECEMBER 31, 1965
 1965 - 1967 APPROPRIATIONS

"GENERAL OPERATIONS"

ACCOUNT	AVAILABLE FUNDS		DISBURSEMENTS		ACCT. BALANCES		
	APPROPRIATION	RECEIPTS	TO DATE	DEC'65	UNEXPENDED	ENCUMB.	UNENCUMB.
1005 - SALARIES EXP #	431,000.00	147,000.00	107,618.17	16,778.56	470,381.83	.00	470,381.83
2005 - FEES & SERVICES	130,000.00	.00	21,659.54	4,950.92	108,340.46	.00	108,340.46
3005 - SUPPLIES & MAT.	175,000.00	.00	56,100.99	14,996.48	118,899.01	.00	118,899.01
4005 - EQUIPMENT	50,000.00	.00	1,690.41	14.00	48,309.59	.00	48,309.59
	<u>786,000.00</u>	<u>147,000.00</u>	<u>187,069.11</u>	<u>36,739.96</u>	<u>745,930.89</u>	<u>.00</u>	<u>745,930.89</u>

#TRANSFERRED \$147,000 FROM CONTRACT FUND TO 1005 OCT.29,1965

"CONTRACT FUND"

001-770-CONTRACT APPROP.	570,000.00	.00	.00	.00	570,000.00	350,000.00	220,000.00
336-770-CONTRACT "CASH"	422,922.57	38,023.40	265,948.75	16,939.59	194,997.22	179,383.00	15,614.22
	<u>992,922.57</u>	<u>38,023.40</u>	<u>265,948.75</u>	<u>16,939.59</u>	<u>764,997.22</u>	<u>529,383.00</u>	<u>235,614.22</u>

PREPARED BY DAN REISER

SWC FILE C5-1.2

NORTH DAKOTA ST/ WATER COMMISSION
STATUS OF CONSTRUCT. BOND GUARANTEE FUND
AS OF DECEMBER 31, 1965

ACCT.	AVAILABLE FUNDS		DISBURSEMENTS		ACCT. BALANCES		
	APPROPRIATION	RECEIPTS	TO DATE	DEC'65	UNEXPENDED	ENCUMB.	UNENCUMB.
535-770 CONST. BOND GUAR.	90,000.00	23,455.34	21,455.69	.00	91,999.65	.00	91,999.65
0500 INVESTMENT PRIN.	20,500.00	.00	.00	.00	20,500.00	.00	20,500.00
	110,500.00	23,455.34	21,455.69		.00	112,499.65	.00 112,499.65

NOTE - FUND #535-770 RECEIPTS ARE OBTAINED FROM RETIREMENT OF AND INTEREST ON SECURITIES THAT WERE IN THE COMMISSION'S SINKING FUND IN EXCESS OF THE AMOUNT REQUIRED TO RETIRE THE SERIES "J" BOND ISSUE ON DECEMBER 10 '57 ORIGINAL DISBURSEMENTS FROM FUND #535-770 WERE MADE DURING THE EARLY 1940'S IN ACCORDANCE WITH SECTION 61-02-56 OF THE CENTURY CODE WHICH PROVIDES THAT THE COMMISSION MAY GUARANTEE OR INSURE, OR AGREE TO PAY, THE INTEREST ON AND PRINCIPAL OF COMMISSION REVENUE BONDS, NOT EXCEEDING 20% OF THE PAR VALUE OF ANY SUCH BONDS

SCHEDULE OF BONDS & INTEREST RECEIVABLE - FUND #535-770

TYPE	DUE DATE	INTEREST RATE	INTEREST REC. TO MATURITY	PRINCIPAL	TOTAL INCOME ANTICIPATED
U.S. SERIES K BONDS	4-67	2.76%	\$ 82.80	\$ 2,000	\$ 2,082.80
U.S. TREASURY BONDS	12-68	2.50%	300.00	3,000	3,262.50
SIoux IRRIG DIST BONDS	1984 SERIALY	2.25	3,825.00	15,500	19,325.00
			\$4,207.80	\$ 20,500	\$24,670.30

EXCESS OVER \$90,000 CASH IN FUND 535-770 TO BE CREDITED TO GENERAL FUND. 1-2-58 AG OPINION

NORTH DAKOTA STATE ENGINEER COMMISSION
PAYROLL - DECEMBER, 1965

NAME	POSITION	GRADE	REMARKS	SALARY	W/TAX	SOC SEC	INS	BONDS	NET
HOISVEEN, MILO W.	STATE ENGR.	Q-10	INC MAR'65	1,292.00	165.40		16.30	168.75	941.55
BAESLER, GORDON	DRAFTSMAN	H-10	INC JUN'65	529.17	58.60				470.57
CHRISTENSEN, RAY	ENGR AID	F-8	INC JUL'65	383.17	45.40	13.89			323.88
COOPER VERN	IRRIG SPEC	I-9	RES DEC'65	578.68	79.80	20.98	16.30		461.60
DIEDE JANE	STENO	D-1	INC SEP'65	225.00	23.90	8.16	3.25		189.69
ENGSTROM, VIRGLE	RODMAN	F-6	RES DEC'65	239.94	25.50	8.70			205.74
FREDRICKSON, FRED	COORDINATOR	L-7	INC DEC'65	777.67	125.00		16.30		636.37
FROELICH, LARRY	GEOLOGIST	K-2	INC APR'65	583.67	43.70		15.95		524.02
GALLAGHER, RICHARD	COMM.	15	STA JUL'61	90.00		3.26			86.74
GLOVER, DALE	HYDROLOGIST	M-1	INC AUG'65	690.67	150.00				540.67
GRAY, GORDON	COMM.	15	STA JUL'65	60.00		2.18			57.82
GRUNSETH, ARLAND	GEOLOGIST	K-9	STA SEP'65	702.67	66.90		16.30		619.47
HILAND, LEONE	CH STENO	H-3	INC MAY'65	441.67	63.00	.77	3.35		374.55
JOCHIM, CLIFF	ATTORNEY	F-3	INC OCT'65	402.17	71.60		16.30		314.27
KNUTSON, LEWIS	DRILLER	I-2	INC JUL'65	480.67	37.50				443.17
KOPP, OWEN	DRAFTSMAN	F-3	STA JUN'65	335.67	46.50	12.17			277.00
LINDVIG, MILTON	ENGINEER	K-3	INC APR'65	600.67	79.00				521.67
LIVERSAGE, KAY	STENO	F-2	INC SEP'65	326.17	37.60	11.82	3.25	18.75	254.75
NELSON, C. P.	DRAIN ENGR	L-7	INC MAY'65	727.67	103.60				624.07
PUTZ ROY	OFF ASST	F-6	INC NOV'65	306.67	27.60	11.12	3.25		264.70
REISER, DANUEL	ACCT.	H-1	INC DEC'65	446.67	39.70	16.19	15.55		375.23
SACKMAN, EUGENE	SURVEYER	H-8	INC MAY'65	504.17	40.30		15.95		447.92
SANDWICK, HAZEN	ENGINEER	M-7	INC DEC'65	837.67	75.90		16.30		745.47
SCHANTZ, GEORGE	ENGR AID	E-6	INC OCT'65	322.67	29.80	14.70	16.45		261.72
SCHULZ, DELTON	ENGINEER	K-9	INC JUL'65	702.67	90.20		16.30		596.17
SCHULZ, JIM	ASST. SECY	N-3	INC APR'65	759.67	103.60		16.30		639.77
TILLOTSON, ANN	RES ASST	D-8	INC SEP'65	272.25	30.90	9.87	3.25		228.23
WALTERSON, HOWARD	CONST SUPT	I-5	INC APR'65	522.67	58.60		16.30		447.77
ZIEGLER, VIC	ENGINEER	N-8	INC JUL'65	867.17	104.80		16.30		746.07
SWG GROUP INSURANCE-20				100.00			100.00		.00
FROEMMING, DALE	ENGR AID	1.90	INC NOV'65	404.70	47.80	14.68			342.22
HAMAN, JAMES	DRILLER	1.95	RES DEC'65	144.30	16.50	5.23			122.57
SENGER, ANTON	OPERATOR	2.40	INC APR'65	571.20	71.00				500.20
VOELLER, PIUS	FOREMAN	2.50	INC APR'65	548.75	11.90		15.55		521.30
				16,778.56	1,971.60	153.72	358.80	1875.01	14,106.94

NORTH DAKOTA STATE WATER COMMISSION
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1965 - 1967 APPROPRIATIONS

"GENERAL OPERATIONS"

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	APPROPRIATION	RECEIPTS	TO DATE	JAN '66	UNEXPENDED	ENCUMB.	UNENCUMB.
1005 - SALARIES EXP	431,000.00	147,000.00	124,159.61	16,541.44	453,840.39	.00	453,840.39
2005 - FEES & SERVICES	130,000.00	.00	23,746.11	2,086.57	106,253.89	.00	106,253.89
3005 - SUPPLIES & MAT	175,000.00	.00	57,449.47	1,348.48	117,550.53	.00	117,550.53
4005 - EQUIPMENT	50,000.00	.00	2,113.41	423.00	47,886.59	.00	47,886.59
	<u>786,000.00</u>	<u>147,000.00</u>	<u>207,468.60</u>	<u>20,399.49</u>	<u>725,531.40</u>	<u>.00</u>	<u>725,531.40</u>

TRANSFERRED \$147,000 FROM CONTRACT FUND TO "1005" OCT. 29, 1965

"CONTRACT FUND"

001-770-CONTRACT APPROP.	570,000.00	.00	.00	.00	570,000.00	350,000.00	220,000.00
336-770-CONTRACT "CASH"	422,922.57	70,341.75	387,914.64	121,965.89	105,349.68	70,487.00	34,862.68
	<u>992,922.57</u>	<u>70,341.75</u>	<u>387,914.64</u>	<u>121,965.89</u>	<u>675,349.68</u>	<u>420,487.00</u>	<u>254,862.68</u>

PREPARED BY DAN REISER

SWC FILE 05-1.2

NORTH DAKOTA STATE WATER COMMISSION
STATUS OF CONSTRUCTION BOND GUARANTEE FUND
AS OF JANUARY 31, 1965

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0500 INVESTMENT PRIN.	20,500.00	.00	.00	.00	20,500.00	.00	20,500.00
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			\$ 4,207.80	\$ 20,500	\$ 24,670.30

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NORTH DAKOTA STATE WATER COMMISSION
PAYROLL - JANUARY, 1966

NAME	POSITION	GRADE	REMARKS	SALARY	W/TAX	S. S.	INS	BONDS	NET
HOISVEEN, MILO W.	STATE ENGR.	Q-10	INC MAR'65	1,292.00	165.40	54.26	16.30	168.75	887.29
BAESLER, GORDON	DRAFTSMAN	H-10	INC JUN'65	530.00	58.60	22.26			449.14
CHRISTENSEN, RAY	ENGR AID	F-8	INC JUL'65	384.00	46.50	16.13			321.37
DIEDE JANE	STENO	D-1	INC SEP'65	225.00	23.90	9.45	3.25		188.40
DUSHINSKE, RUSSELL	COMM.	15	STA JUL'65	30.00		1.26			28.74
FREDRICKSON, FRED	COORDINATOR	I-7	INC DEC'65	778.00	125.00	32.68	16.30		604.02
FROELICH, LARRY	GEOLOGIST	K-2	INC APR'65	584.00	67.00	24.53	15.95		476.52
GALLAGHER, RICHARD	COMM.	15	STA JUL'61	15.00		.63			14.37
GLOVER, DALE	HYDROLOGIST	M-1	INC AUG'65	691.00	150.00	29.02			511.98
GRAY, GORDON	COMM.	15	STA JUL'65	225.00		9.45			215.55
GRUNSETH, ARLAND	GEOLOGIST	K-9	STA SEP'65	703.00	66.90	29.53	16.30		590.27
HANSON, HAROLD	COMM.	15	STA JUL'65	165.00		6.93			158.07
HILAND, LEONE	CH STENO	H-3	INC MAY'65	442.00	63.00	18.56	3.35		357.09
HOCHIM, CLIFF	ATTORNEY	F-3	INC OCT'65	403.00	71.60	16.93	16.30		298.17
KNUTSON, LEWIS	DRILLER	I-2	INC JUL'65	481.00	37.50	20.20			423.30
KOPP, OWEN	DRAFTSMAN	F-3	STA JUN'65	336.00	47.60	14.11			274.29
LINDVIG, MILTON	ENGINEER	K-3	INC APR'65	601.00	79.00	25.24			496.76
LIVERSAGE, KAY	STENO	F-2	INC SEP'65	327.00	45.40	13.73	3.25	18.75	245.87
NELSON, C.P.	DRAIN ENGR	L-7	INC MAY'65	728.00	103.60	30.58			593.82
PUTZ, ROY	OFF ASST	F-6	INC NOV'65	307.00	27.60	12.89	3.25		263.26
REISER, DANUEL	ACCT.	H-1	INC DEC'65	447.00	39.70	18.77	15.55		372.98
SACKMAN, EUGENE	SURVEYER	H-8	INC MAY'65	505.00	40.30	21.21	15.95		427.54
SANDWICK, HAZEN	ENGINEER	M-7	INC DEC'65	838.00	75.90	35.20	16.30		710.60
SCHANTZ, GEORGE	ENGR AID	E-6	INC OCT'65	323.00	29.80	13.57	16.45		263.18
SCHULZ, DELTON	ENGINEER	K-9	INC JUL'65	703.00	90.20	29.53	16.30		566.97
SCHULZ, JIM	ASST. SECY.	N-3	INC APR'65	760.00	109.20	31.92	16.30		602.58
STEINBERGER, HENRY	COMM.	15	STA JUL'61	30.00		1.26			28.74
TILLOTSON, ANN	RES ASST	D-8	INC SEP'65	273.00	30.90	11.47	3.25		227.38
WALTERSON, HOWARD	CONST SUPT	I-5	INC APR'65	523.00	58.60	21.97	16.30		426.13
ZIEGLER, VIC	ENGINEER	N-8	INC JUL'65	868.00	104.80	36.46	16.30		710.44
ABC GROUP INSURANCE	- 19			95.00			95.00		.00
FROEMMING, DALE	ENGR AID	1.90	INC NOV'65	380.00	45.00	15.95			319.05
SENGER, ANTON	OPERATOR	2.40	INC APR'65	141.60	16.20	5.94			119.46
WOLLER, PIUS	FOREMAN	2.50	INC APR'65	425.00	35.00	17.88	15.55		388.07
				15,558.60	1,822.70	649.50	337.50	187.50	12,561.40

MINUTES
NORTH DAKOTA STATE WATER COMMISSION
 Held in the Office of the State Water Commission
 Bismarck, North Dakota
 February 14, 1966

MEMBERS PRESENT:

R. P. Gallagher, Vice-Chairman, Mandan
 Gordon Gray, Member from Valley City
 Henry Steinberger, Member from Donnybrook
 Russell Dushinske, Member from Devils Lake
 Arne Dahl, Commissioner, Department of Agriculture & Labor, Bismarck
 Milo W. Hoisveen, State Engineer, Chief Engineer and Secretary, Bismarck

Others Present:

Fred J. Fredrickson, Planning Coordinator, Valley City
 Cliff Jochim, Special Assistant Attorney General, Bismarck

Vice Chairman Gallagher opened the meeting
 at 9:20 a.m.

**MINUTES OF DECEMBER 10,
 1965 APPROVED**

The Commission members approved the minutes of December 10, 1965 as circulated.

**FINANCIAL STATEMENTS FOR
 DECEMBER, 1965, AND JANUARY,
 1966**

Secretary Hoisveen reviewed the financial statements for December, 1965, and January 1966. There was discussion on the contract fund and the advisability of changing the law to permit the contract fund to become a continuing fund similar to that feature previously included in the Commission's multiple purpose fund which was replaced by the contract fund. It was the consensus that efforts should be made to enact legislation to provide a continuing fund.

It was moved by Commissioner Dahl, seconded by Commissioner Steinberger and carried that the Financial Statements for December, 1965, and January, 1966, be approved.

**WATER MANAGEMENT DISTRICT -
 HETTINGER COUNTY**

Secretary Hoisveen stated that a hearing was held in Mott relative to establishing the Hettinger County Water Management District commensurate with the boundaries of Hettinger County. The Secretary recommended the establishment of a water management district in view of the favorable hearing that was held.

It was moved by Commissioner Gallagher, seconded by Commissioner Gray and carried that the Chairman and Secretary be authorized and directed to issue an order establishing the Hettinger County Water Management District to include all the area within the boundaries of Hettinger County.

**BOTTINEAU COUNTY WATER
MANAGEMENT DISTRICT**

management district.

A request has been received from the Bottineau County Commissioners that hearings be held in Bottineau County relative to the establishment of a water

It was moved by Commissioner Steinberger, seconded by Commissioner Dahl and carried that hearings be held in Bottineau County relative to the establishment of a water management district.

**STARK COUNTY WATER
MANAGEMENT DISTRICT**

district.

A request has been received from the Stark County Commissioners that hearings be held in Stark County relative to the establishment of a water management

It was moved by Commissioner Gallagher, seconded by Commissioner Gray and carried that hearings be held in Stark County relative to the establishment of a water management district.

**SWEETWATER-DRY LAKE DRAINAGE
PROJECT PROGRESS**

Commissioner Dushinske reported that on last Wednesday and Thursday representatives of the State Game and Fish Department, Sport Fisheries and Wildlife

Service, Soil Conservation Service and the State Water Commission met. Messrs. Nelson and Jochim represented the State Water Commission. The first day was a frank, open discussion on the matter. The second day resulted in a Statement of Intent. Commissioner Dushinske stated he signed the Statement of Intent after consulting with the State Water Commission's Attorney. He stated that a report will be prepared in rough form by the field task force and reviewed by each of the agencies mentioned above for concurrence, and furnished to the local sponsoring organizations in final form as soon as time and weather permit, probably some time in May, 1966, but earlier if possible. It was agreed by all agencies represented on the task force that substantial amounts of mitigation will be necessary to reduce the loss of wildlife resources in the watersheds that would occur from a program of channel improvements for flood prevention. At the suggestion of Mr. Jochim, the phrasing "mitigations will be necessary" was changed to "mitigations may be necessary." A letter was sent to Senator Young from the Sweetwater-Dry Lake Water Management District wherein it is stated that "It is hoped that all of the agencies involved will cooperate so that a plan can be formulated by May of this year, for the development of a watershed program through the Soil Conservation Service which would be acceptable to all agencies having an interest in this area and which would also be acceptable to the owners of the area who are presently damaged each year by flooding. It is also the intent of the local water management district to also have its plan formulated by May of this year and ready for implementation in the event there cannot be a watershed program worked out which would be tolerated by the local farmers and landowners." The Water Management District expressed a desire to have the State Water Commission continue working on an alternative plan. They were informed by Mr. Jochim that the State Water Commission would not want to invest money in a plan that may not be used.

Commissioner Dushinske stated that the Water Commission is committed to participate to the extent of \$1,500. In answer to Commissioner Dushinske's question as to the Commission participating with the water management district's plans, Secretary Hoisveen stated the Commission could but it would be difficult to make up a comprehensive plan that might be discarded. This would be a waste of Commission funds. Secretary Hoisveen stated that a tentative cost estimate has been completed and is available. This is not based on the detailed design and to make an estimate of considerable accuracy would be a requirement. He re-emphasized that the staff did not have time to spend on a design and plan if it is not going to be put to use. He implied that an added work load has occurred as a result of our added activities with the Bureau of Outdoor Recreation, the Office of Emergency Planning and the U. S. Department of Indian Affairs.

Commissioner Dushinske asked if the district should be advised that a tentative cost estimate is available to them now and that after May, if they decide to not go along with the Government plan, to contact the Commission again. Dushinske further stated that he had asked Mr. Jochim to prepare an outline as to what the Commission is able to do in cash, services, etc.

Secretary Hoisveen stated that this project would run to \$1 million and the State Water Commission could not possibly consider the project under our present financial structure without adversely affecting the State Water Commission's program as provided by the Legislature. He did indicate that the Commission staff would certainly cooperate with the water management district to the fullest degree our capabilities would permit. The Commission discussed the technicalities and mitigations as they related to the project.

It was moved by Commissioner Dahl, seconded by Commissioner Gray and carried that the Statement of Intent be spread upon the minutes (See Appendix A); that the Commission approve the action of Commissioner Dushinske at the meeting of the Sweetwater-Dry Lake drainage project held in Devils Lake; and resolve that the State Water Commission, within its capabilities, will coordinate the initiation and conduct of the field activities of the Task Force established at the February 10, 1966, meeting with the Sweetwater-Dry Lake Water Management District and be responsible for the submission of the report to the local sponsoring agencies within the Task Force.

LAKE ALICE DRAINAGE AREA

Commissioner Dushinske stated that the Chain Lakes District is a very small water management district and does not raise much in the way of taxes. Their problem is that the drainage comes from the Turtle Mountains and Towner County and floods adjacent areas to these lakes. Arrangements have been made with Mr. Wick of Valley City to build a control structure. This problem results from the lakes filling up with water in the spring. The District would like to increase the size of one of the bridges which is on the county line. This can be worked out with Ramsey and Towner Counties. The problem in Benson County is that there are four or five bridges which would have to be enlarged or underpinned. Digging out the coulee would make it too deep and there then would have to be more

capacity provided in the bridges. The proposal now is not to make it so deep. Mr. Magnuson, a member of the Chain Lakes Water Management District, talked to members of the State Water Commission in regard to underpinning the bridges and securing Commission participation. As soon as it is dry enough they want to do some dirt moving and underpin the bridges.

Secretary Hoisveen stated that the Commission does not participate in bridge construction. The Commission has authority to participate in bridge construction but has hesitated to do so because of the number of requests that would be received for such participation. The Commission does participate in other phases of this type of work, such as channel improvement and it would appear as though underpinning would fall in the category of channel improvement as it is a direct result of that activity.

The Commission discussed appointment of members to the water management district board. The district has been inactive and the County Commissioners have not appointed members to the board or staggered the terms of the membership as required by law.

The Commission deferred any action until such time as the local board is prepared to do ahead.

It was suggested that letters be sent to the County Commissioners relative to the appointment of members to water management districts requesting them to advise the Commission of the appointment of members on the Board.

LUCCA DRAIN

Secretary Hoisveen read a letter from the Soil Conservation Service, which letter was addressed to M. I. Skramstad, Chairman of the Barnes County Drain Board, acknowledging receipt of a letter dated January 21, 1966, from the Drain Board that the local people have accepted the biology report on the Lucca Drain and have agreed to comply with the recommended mitigation measures. Hoisveen also read a letter from Mr. Skramstad to the Soil Conservation Service agreeing to the necessary wetland mitigation.

TONGUE RIVER CUTOFF CHANNEL

Secretary Hoisveen stated that he had written to the Soil Conservation Service regarding the channel degradation occurring on the Tongue River cutoff. The Soil Conservation Service has put in two different structures which have been washed out. It is the opinion of the Commission that the Soil Conservation Service should be responsible for installing a structure that will not wash out. The Commission discussed the Federal Government turning over a project to the local entity without a test period of two or three years following completion of a project. The consensus definitely favored a test period.

MISSOURI RIVER BANK STABILIZATION PROJECT

Secretary Hoisveen stated that in reply to Senator Young's letter, he had stated that the matter would be discussed at the State Water Commission meeting and that the Senator would be notified of the Commission's thinking on the matter.

The Secretary forwarded to Senator Young the information he requested pertaining to the bank stabilization project. A presentation was made before the Mississippi Valley Association convention in Washington, D. C. on Missouri River bank stabilization by Mr. Fredrickson.

Commissioner Dushinske stated that the reception of the presentation on bank stabilization at the Mississippi Valley Association meeting was very favorable and received unsolicited support from members of the Missouri River basin states.

Mr. Fredrickson was then requested and reviewed the amendments to the MVA platform as adopted by the Association. One amendment referred to bank stabilization on navigable streams in general.

"We urge that the Federal Government assume responsibility for the construction, maintenance and operation of necessary bank stabilization and protective works when increased (above normal) bank erosion has been or is being caused by Federally constructed or operated projects on navigable streams."

Another amendment referred to bank stabilization on the Missouri River.

"Assumption by the Federal Government of its responsibility for the construction, maintenance and operation of adequate bank stabilization and protective works below main stem Missouri River dams where increased bank erosion has caused or is causing damages to riparian lands, without cost to local interests, pursuant to the provisions of the Missouri River Basin Project."

Bank erosion on the Missouri River was another amendment to the platform.

"Recommended additional reauthorizations, if necessary, for carrying forward the construction, maintenance and operation, at Federal expense, of the program for bank stabilization and protective works along the Missouri River below Garrison Reservoir."

Mr. Fredrickson stated that it appears that the Corps of Engineers already has the authority to provide and maintain bank stabilization and erosion protective works at 100 per cent Federal expense. In the Report of the Missouri Basin Survey Commission is a study and an analysis of the Missouri River Basin Project, which had been authorized five years before that time. Such authority was built in as a part of the project itself. The authorization for the bank stabilization and its maintenance is a Federal government expense. Mr. Fredrickson stated that it was his opinion that this bank stabilization problem should be presented to the National Rivers and Harbors Congress, which includes members of Congress as officers. The next meeting is June 7-10. If that organization approves the proposals, the Commission will have a much better chance of having it presented to Congress during the current or next session.

Commissioner Gallagher was of the opinion that the present controversy was the result of a misunderstanding that can be judiciously handled. Senator Young apparently feels that the Commission is

critical because the State Water Commission had to assume the a.b.c.'s.

Secretary Hoisveen averred that Senator Young deserves a tremendous amount of credit for getting this money for the project. Hoisveen was of the opinion that Senator Young might feel the Commission thought he should have eliminated the "c" part and that the Commission holds him responsible for not doing so, which, of course, is not the case.

Mr. Fredrickson felt that the members of Congress from North Dakota should be sent a copy of the Report on the Missouri River Bank Stabilization (which is attached to the minutes as Appendix B).

Commissioner Steinberger recommended that the report to the State Water Commission on Missouri River Bank Stabilization dated February 14, 1966, be presented to the National Rivers and Harbors Congress, and a copy be forwarded to the North Dakota Congressional Delegation.

Mr. Dahl leaves the meeting and stated that he wanted to be recorded as voting "aye" on accepting and concurring in the report.

Mr. Fredrickson stated that the Legislative Research Committee had been requested to study the inequities of the OEM requirements for bank stabilization of the Corps of Engineers on the Missouri River in accordance with a resolution passed by the State Water Commission.

Commissioner Dushinske stated that he felt the people should know that it is the members of the entire State Water Commission who are involved in this controversy and not just Secretary Hoisveen and Mr. Fredrickson, who are the ones being criticized.

The meeting adjourned and reconvened at 1:30 p.m. Governor Guy and Commissioner Dahl were not present.

MISSOURI RIVER BANK
STABILIZATION - continued

It was moved by Commissioner Steinberger, seconded by Commissioner Dushinske and carried

1. That the Commission accepts the report prepared by Fred J. Fredrickson, Planning Coordinator for the State Water Commission, on the Missouri River Bank Stabilization dated February 14, 1966;
2. That the Commission commends Mr. Fredrickson for the excellent report;
3. That the Commission confirms the assurances heretofore made to the Corps of Engineers on the bank stabilization project presently in progress;

4. That the Commission directs that copies of this report be sent to the Congressional Delegation of the State of North Dakota;
5. That the Commission directs that its staff present this report to the National Rivers and Harbors Congress to be held in June;
6. That copies of this report be mailed to the members of the Legislative Research subcommittee on Local, State and Federal Affairs.

(Commissioner Dahl had stated that he could not be present for the afternoon session but voted "aye" on the Missouri River Bank stabilization report.)

Governor Guy enters the meeting.

P.L. 89-80 MISSOURI
BASIN COMMISSION

It was moved by Governor Guy, seconded by Commissioner Steinberger and carried that the State Water Commission approve the exploration of the possibility of

establishing a Missouri Basin Commission under P. L. 89-80.

Governor Guy leaves the meeting.

MEETING WITH CONGRESSIONAL
DELEGATION

It was moved by Commissioner Gray, seconded by Commissioner Steinberger and carried that the Commission noted that because of the vast number of federal water projects presently being undertaken, and proposed to be undertaken, in this State, that it would be in the best interest of the State of North Dakota and the State Water Commission that representatives from the State Water Commission meet with the Congressional Delegation of this State with respect to these water problems.

MISSOURI RIVER FLOODING PROBLEMS

Secretary Hoisveen stated that he had arranged a meeting with the Corps of Engineers and interested local people

last Friday pertaining to the flooding that has occurred below Bismarck as a result of the high water releases made by the Corps of Engineers. High water releases have been made from the Garrison Reservoir during freeze up periods in 1963, 1964 and 1965. It was his opinion that the high releases caused the flooding that has inundated some 3,500 acres of bottom land. In some cases it had caused considerable hardship. It has also negated the raising of alfalfa in some of the low areas. At Friday's meeting, Mr. Waara, Chief of the Reservoir Control Center at Omaha, reviewed the program of the Corps and related the reason for the high releases to the need for power. The group that was present included public officials from Mandan and Bismarck and the State Penitentiary. As a result of the meeting it was agreed that the Corps of Engineers would make releases on a uniform flow basis during freeze up on a trial basis if the period did not exceed ten days. Freeze up occurs in the reaches of the Oahe Reservoir and extends northward as a result of the warm water flowing from the reservoir. The fluctuation of the releases keeps the frazzle ice in an agitated condition which contributes to ice jams when it reaches the ice front.

They also agreed to fly the area daily and check on impending flood conditions during the freeze up period. They could better evaluate the condition and advise the landowners relative to the danger of flooding through the Weather Bureau and news media. They also agreed to explore the possibility of purchasing flowage easements on lands in this reach of the river. The compensation would be based on 90% to 95% of the value of the land. The land would still belong to the present owner. They did not believe there was any danger of ice damage in the spring unless there were heavy flows coming from the Heart, Knife and Burnt Creek, which would be compensated for by closing the gate of the dam.

Mr. Fredrickson stated that the farmers could get relief from the inundation statute. This statute states that inundated lands could be taken off the tax roll; however, the statute does not state how long the lands can be inundated or how often. The statute should be amended. The Commission suggested that this be placed on the agenda for the next meeting and that this matter be taken up with the Tax Department.

ENGLISH COULEE DIVERSION
Grand Forks County Water
Management District

A letter was received from the Grand Forks County Water Management District requesting a complete report on the English Coulee survey. The Board would like to know what help they can get from the Water

Commission on this project. They need these figures to plan a program and budget for 1967. Mr. Nelson, State Water Commission Engineer, has been working with these people from time to time. (The Commissioners were furnished maps of the area.) Secretary Hoisveen describes what is proposed to be done to divert the water in English Coulee. Mr. Nelson has estimated a cost of \$500,000 for this project. It would not be possible for the Commission to participate in this project on a 40 per cent basis, as it would be too costly. University of North Dakota might possibly be interested in this project. Commissioner Gallagher believed that their request is premature and the Secretary averred that the Board should explore its own avenues of participation on this project. The Board of Administration and Highway Department should be interested in this project also.

It was moved by Commissioner Dushinske, seconded by Commissioner Gray and carried that the State Engineer confer with the Grand Forks County Water Management District on the finances of their project and ask them to explore other financial sources, and the University of North Dakota.

STATE DEVELOPMENT PLAN 701

The scope of the State Development Plan will indicate the population, present and projected, economic activity and land use. The basic data would then be utilized by all government agencies in developing plans in specialized areas. The State Water Plan would be an element of the State Development Plan and prepared with 701 funds which provides 2/3 of the cost. It is estimated that if a planning division was formed within the Commission the cost would approximate \$90,000 annually for personnel and related costs in the development of a comprehensive state water plan. The Commission discussed the '701' plan which is under the jurisdiction of the HHF Administration, a federal agency. Funds under the Land, Water and Conservation Fund Act were on a 50-50 matching grant basis.

Commissioner Gallagher suggested that Mr. Fredrickson and Mr. Jochim go over the two acts and see which would be best for the State Water Commission to proceed under.

The Commission recommended that the staff be directed to study this matter and place it on the agenda for the next meeting.

SALARY ADJUSTMENTS

Secretary Hoisveen stated that the Commission has employed some additional engineers to take care of part of the work load.

As a result it was obvious that an adjustment of salaries was needed in the Commission. A Committee of three employees of the State Water Commission was appointed to go over the salaries and make adjustments. Secretary Hoisveen stated that he had also made several recommendations which included department heads and recommended that the adjustments be made effective February 1, 1966, to June 30, 1967 in accordance with the listings.

It was moved by Commissioner Gray, seconded by Commissioner Steinberger and carried that the Commission approve the proposed salary adjustment.

WATER INJECTION STUDIES IN NORTH DAKOTA AQUIFERS

Secretary Hoisveen stated that situations have developed in North Dakota which have indicated a need for water injection research for some of the groundwater

aquifers in North Dakota. Hoisveen explained the success of artificial recharge in the Minot area and the need for such a study in the Fargo and Southwest Fargo area. A preliminary meeting has been carried on with the North Dakota State University Engineering Department pursuant to the study. There is a possibility that the injection studies can be a cooperative venture with the State University and the Water Resources Research Institute located at that University. The Institute will ask for a Federal grant which has to be matched at the local level. The State University has indicated a willingness to put in \$5,000 on this study and the Institute would participate to the extent of \$15,000. The estimated cost of the project would be \$30,000 for the first year. Secretary Hoisveen stated that this project would take three or four years. They are required to notify the Washington, D. C. office by March 1st. Hoisveen recommended that the Water Commission participate to the extent of \$10,000 for the first year of the water injection program. Should the study appear to be of value, it is anticipated that the State Water Commission would be requested to participate in the continued study.

It was moved by Commissioner Gray, seconded by Commissioner Steinberger and carried that the State Water Commission participate in the water injection study in cooperation with the State University and the Water Resources Research Institute to the extent of one-third of the study cost.

HEAT POLLUTION STUDY BELOW MISSOURI RIVER POWER PLANTS

Secretary Hoisveen stated that he had checked into heat pollution and its possible effects on the Missouri River

and was of the opinion that a water heat study would be beneficial to the

Water Commission and industries as it concerns the steam generating plants that are being built, and proposed plants, near Stanton, North Dakota. He indicated that the U. S. Air Force is using infrared devices for detecting human life in Vietnam jungles. He said this device caused him to discuss the matter with the U. S. Geological Survey. They are currently using these devices for mapping and believe they could use them for water heat detection. Photography is used in connection with the heat detection devices. Black and white, or color, film is used to capture the light reflection process, responsible to the right wave length range, and detects heat radiation in the temperature range of interest. A thermistor-type sensing element responds electrically to the moisture vapor present in the atmosphere along the path of the aircraft. Basin Electric, which operates a large plant on the Missouri River, is interested in this study. Other companies, no doubt, would aid in the study. A study of this type would enable the Water Commission to answer questions as to heat pollution in the Missouri River and would be useful in determining desirable locations for industry, and avoid heat problems.

It was moved by Commissioner Gallagher, seconded by Commissioner Steinberger and carried that the Commission directs the State Engineer to proceed with a research study on heat pollution in the Missouri River.

**GARRISON DIVERSION CONSERVANCY
DISTRICT RESOLUTION**

A resolution was received from the Garrison Diversion Conservancy District expressing appreciation for the assistance the State Water Commission has given the

Conservancy District since the District was organized in 1955. It was recommended that the Garrison Diversion Conservancy District Resolution be made a part of the minutes. (See Appendix C.) It was further recommended that the State Water Commission acknowledge receipt of the Resolution.

Letters were received from G. G. Stamm of the Bureau of Reclamation, Stuart Udall, Secretary of the Interior, and Kenneth Holum, Assistant Secretary of the Interior, acknowledging receipt of a resolution adopted by the State Water Commission in October. The acknowledging parties indicated full support towards obtaining the appropriations needed for construction funds for the Garrison Diversion Unit.

**MCLEAN COUNTY REQUEST FOR
COUNTY-WIDE GROUNDWATER
STUDY**

The County Commissioners of McLean County have requested the State Water Commission for a county-wide groundwater study. The Commission's share would be \$9,500 annually for this ground water study and

it would be matched by the County. The funds provided by the County and State Water Commission would, in turn, be matched by the U. S. Geological Survey Ground Water Branch.

It was moved by Commissioner Steinberger, seconded by Commissioner Gallagher and carried that the State Water Commission participate in the McLean County ground water study.

WATER RIGHTS

#1088

Commission by the Secretary for consideration.

The application of Mike Dolajak, Dickinson to divert 120 acre-feet of water from a well for the purpose of irrigating 70 acres of land was presented to the

The State Engineer, Milo W. Hoisveen, having considered the application and made his recommendation thereon for 120 acre-feet to irrigate 70 acres of land, it was moved by Commissioner Gray, seconded by Commissioner Gallagher and carried that the application be approved and the permit granted for the diversion of 120 acre-feet to irrigate 70 acres of land, subject to such conditions as indicated on the permit.

#1306

for the purpose of irrigating 40 acres of land was presented to the Commission by the Secretary for consideration.

The application of W. C. Dodge of Keene, to divert 40 acre-feet of water from unnamed channel tributary to Dimmick Lake

The State Engineer, Milo W. Hoisveen, having considered the application and made his recommendation thereon for 40 acre-feet to irrigate 40 acres of land, it was moved by Commissioner Gray, seconded by Commissioner Gallagher and carried that the application be approved and the permit granted for the diversion of 40 acre-feet to irrigate 40 acres of land, subject to such conditions as indicated on the permit.

#1327

20 acres of land was presented to the Commission by the Secretary for consideration.

The application of Norman Mell, Ross, to divert 40 acre-feet of water from Unnamed Lake for the purpose of irrigating

The State Engineer, Milo W. Hoisveen, having considered the application and made his recommendation thereon for 40 acre-feet to irrigate 20 acres of land, it was moved by Commissioner Gray, seconded by Commissioner Gallagher and carried that the application be approved and the permit granted for the diversion of 40 acre-feet to irrigate 20 acres of land, as subject to such conditions as indicated on the permit.

#1335

tary to Cedar River for the purpose of irrigating 222 acres of land was presented to the Commission by the Secretary for consideration.

The application of J. F. Weekes, McIntosh, South Dakota, to divert 600 acre-feet of water from Unnamed Intermittent Draw tribu-

The State Engineer, Milo W. Hoisveen, having considered the application and made his recommendation thereon for 222 acre-feet to irrigate 222 acres of land, it was moved by Commissioner Gray, seconded by Commissioner Gallagher and carried that the application as modified by the recommendation of the State Engineer be approved and the permit granted for the diversion of 222 acre-feet to irrigate 222 acres of land, subject to such conditions as indicated on the permit.

#1341

The application of the City of Dickinson to divert 200 acre-feet of water from the Heart River for the purpose of irrigating the city golf course - 56.5 acres of land - was presented to the Commission by the Secretary for consideration.

The State Engineer, Milo W. Hoisveen, having considered the application and made his recommendation thereon for 112 acre-feet plus 88 acre-feet evaporation and storage, a total of 200 acre-feet to irrigate 56.5 acres of land on the city golf course, it was moved by Commissioner Gray, seconded by Commissioner Gallagher and carried that the application be approved and the permit granted for the diversion of 200 acre-feet to irrigate 56.5 acres of land on the city golf course, subject to such conditions as indicated on the permit.

#1342

The application of Robert Raney, Drayton, to divert 480 acre-feet of water from the Red River to irrigate 1280.8 acres of land was presented to the Commission by the Secretary for consideration.

The State Engineer, Milo W. Hoisveen, having considered the application and made his recommendation thereon for 480 acre-feet to irrigate 1280.8 acres of land, it was moved by Commissioner Gray, seconded by Commissioner Gallagher and carried that the application be approved and the permit granted for the diversion of 480 acre-feet to irrigate 1280.8 acres of land, subject to such conditions as indicated on the permit.

#1343

The application of Ralph L. Harmon, Carrington, to divert 600 acre-feet of water from wells to irrigate 400 acres of land was presented to the Commission by the Secretary for consideration.

The State Engineer, Milo W. Hoisveen, having considered the application and made his recommendation thereon for 600 acre-feet to irrigate 400 acres of land, it was moved by Commissioner Gray, seconded by Commissioner Gallagher and carried that the application be approved and the permit granted for the diversion of 600 acre-feet to irrigate 400 acres of land, subject to such conditions as indicated on the permit.

#1344

The application of Kermit Perhus, Marshall, to divert 190 acre-feet of water from intermittent dry stream, tributary to the Knife River, to irrigate 95 acres of land was presented to the Commission by the Secretary for consideration.

The State Engineer, Milo W. Hoisveen, having considered the application and made his recommendation thereon for 95 acre-feet to irrigate 95 acres of land, it was moved by Commissioner Gray, seconded by Commissioner Gallagher and carried that the application as

modified by the recommendation of the State Engineer be approved and the permit granted for the diversion of 95 acre-feet to irrigate 95 acres of land, subject to such conditions as indicated on the permit.

The meeting adjourned at 3:15 p.m.

Milo W. Hoisveen
Secretary

ATTEST:

William L. Dwyer
Governor-Chairman

APPENDIX A

Statement of Intent of the North Dakota Game and Fish Department, Soil Conservation Service, Bureau of Sport Fisheries and Wildlife and North Dakota State Water Commission for the preliminary investigation of the feasibility of development of a watershed plan for the Edmore-Starkweather Watershed.

The above listed agencies agree to establish a task force composed of representatives of their agencies to examine the watershed to determine criteria for the conservation of wildlife habitat,, flood control, drainage, and land resources.

The objective of the study will be to prepare a report outlining the findings of the task force for the consideration of the sponsoring local organizations. Possibilities of enhancement of wildlife habitat will be included in the report if found.

The report will be prepared in rough form by the field task force and reviewed by each of the above agencies for concurrence and furnished to the local sponsoring organizations in final form as soon as time and weather permit, probably some time in May, 1966 but earlier if possible.

The agencies' will examine the watershed by appropriate means such as ground inspection, aerial reconnaissance and possibly contact with local land-owners. The work will be done as soon as transportation can be arranged and weather permits field operations. The task force will examine the possibilities for the construction of major channel improvements, flood detention areas and major lateral drainage facilities. Examples of small wetlands which can be drained and feasible mitigation measures for wildlife habitat which may be lost will be cited and identified as to location on a sample basis.

It is agreed by all agencies represented on the task force that substantial amounts of mitigation ^{may} ~~will~~ be necessary to reduce the loss to wildlife resources in the watersheds that would occur from a program of channel improvements for flood prevention.

The State Water Commission will co-ordinate the initiation and conduct of the field activities of the task force and be responsible for the submission of

the report to the local sponsoring organizations. It is the understanding of the agencies that the sponsoring local organizations will review and discuss the report prepared by these agencies with a number of affected landowners within the watersheds.

It is the opinion of the Soil Conservation Service that a plan for the watersheds would be authorized by the Congress in approximately 2 to 2½ years from now providing:

- (a) The report prepared by the task force is acceptable to the sponsors and affected landowners.
- (b) That the State Soil Conservation Committee would establish a high priority for planning to these watersheds.
- (c) The sponsoring local organizations provide adequate assurance that they will in fact install, operate and maintain watershed works of improvements if they are developed.
- (d) Funds are available from the U. S. Government for construction.

Signed	<u>s/ Arthur H. Cratty</u> for the Soil Conservation Service	<u>2/10/66</u> Date
	<u>s/ Burton W. Rounds</u> for the Bureau of Sport Fisheries & Wildlife	<u>2/10/66</u> Date
	<u>s/ Wilbur Boldt</u> for the North Dakota Game & Fish Department	<u>2/10/66</u> Date
	<u>s/ R. L. Dushinske</u> for the North Dakota State Water Commission	<u>2/10/66</u> Date

REPORT
TO
STATE WATER COMMISSION
ON
MISSOURI RIVER BANK STABILIZATION
February 14, 1966

1. North Dakota is concerned over a serious problem involving the application of the so-called Corps of Engineers' (a), (b) and (c) assurances of local cooperation to a bank protection and stabilization project of non-continuous areas along the Missouri River. This improvement is necessitated because of erosion caused by greatly fluctuating and highly irregular releases of silt-free waters from the Garrison Reservoir. Spelled out, these assurances, when supplied in connection with a local project, require that the sponsoring agency shall -

- "(a) provide without cost to the United States all lands, easements, and rights-of-way necessary for the construction and operation of the project;
- "(b) hold and save the United States free from damages due to the construction works;
- "(c) maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary of the Army."

2. Compliance with these requirements in connection with the construction of a local project may be considered reasonable. When it comes to a river project having basinwide significance, such as the Missouri River Basin, with a number of main stem dams maintained and operated by the Federal Government for flood control and navigation as major project purposes, the situation is altered. It then becomes an unreasonable and inequitable requirement. The need for channel improvement, bank protection and river shaping in the Missouri River becomes necessary because of the Federal operation of the reservoirs, such as the Garrison Reservoir, which releases silt-free waters therefrom.

- 2 -

3. For the record, it should be noted that the comprehensive plan for flood control, navigation and other purposes in the Missouri River Basin, authorized by the Flood Control Act approved June 28, 1938 (P. L. 75-761), as amended and supplemented by the Flood Control Act approved December 22, 1944 (P. L. 78-534), was further modified by the Flood Control Act approved December 30, 1963 (P. L. 88-253), "to include bank protection works at or below the Garrison Reservoir as in the discretion of the Chief of Engineers and the Secretary of the Army may be found necessary, at an estimated cost of \$3,000,000."

4. In its statement on the need for the Missouri River bank protection works, the Senate Committee on Public Works in Senate Report No. 648, 88th Congress, 1st Session, said:

"Prior to construction of the Garrison Dam the waters of the Missouri River were heavily laden with silt and sediment to the point that, while bank erosion did occur, it was very minimal, and usually for each loss of land there was a corresponding accretion or gain in the area. With the construction of Garrison Dam, the sediment is deposited in reservoir, and the releases from the reservoir are virtually silt free and they degrade the channel and erode the banks downstream from the dam at a considerable rate. It is estimated that about 640 acres of good river-bottom land in North Dakota is lost annually along the Missouri River below Garrison Dam through bank erosion.

"The committee realizes that the State and the owners of the bottom lands below the Garrison Dam are being confronted with a serious problem. It is not believed that the necessary bank stabilization works can be constructed under the existing authority for the Missouri River Basin, and the committee recommends language that would clarify that authority, but that a limitation of \$3 million be placed on the projected works to correct the present situation."

5. In a statement to the House Committee on Appropriations considering public works appropriations for 1966, the Corps of Engineers showed that the Missouri River Bank Stabilization project had a benefit-cost ratio

- 3 -

of 1.3 to 1, and the justification contained the following information:

"Bank protection improvements are necessary to prevent destructive bank erosion which is concentrated at several locations along the Missouri River between the Garrison Dam and the Oahe Reservoir. In earlier years, loss of land due to erosion was offset by replacement of land due to accretion. However, replacement of accretion land in the reach between Garrison and Oahe has been largely eliminated due to retention of silt in upstream reservoirs. The erosion is currently active and severe in several areas in this reach, and the authorized project will stabilize the banks and prevent further loss of agricultural land in these areas.

"With funds requested for fiscal year 1966 stabilization improvements required in the Square Butte area and part I of the Lake Mandan area will be completed and construction in the Fort Clark area will be initiated.

"Non-Federal costs. - The investment required of local interests to initiate and construct this project is estimated at \$5,000 for all lands, easements, and rights-of-way. Local interests are required to operate and maintain the project upon completion. The annual cost for operation and maintenance is estimated at \$45,000.

"Status of local cooperation. - The State of North Dakota has officially assumed sponsorship of the project and will furnish all lands, easements, and rights-of-way necessary for construction. The necessary lands and rights-of-way for area 5 have been provided and other areas will be made available before construction is initiated."

6. By every measure in equity, relief from bank erosion due to the operation of the Garrison or any main stem reservoir on the Missouri River, is a Federal responsibility as a part of the basin project. It is understood that in the case of river construction to benefit only navigation or prevent shore erosion, maintenance of the protection works or channel improvements is assumed by the United States. If this is a correct statement, then it would appear that such policy should apply as well to the Missouri River Basin project, where the development is basinwide and the benefits to flood protection and navigation are no more identifiable than where the entire development

- 4 -

is for navigation or beach protection. Whether the damages involved are from erosion by ocean or river's motion should make no difference in the liability for damages due to Federal construction and operation.

7. Entirely aside from the situation as interpreted by the Corps of Engineers under authorizing legislation, it is suggested that disregard by the constructing agency of the natural and probable injurious, foreseeable consequences becomes an element of negligence. Foreseeability or even anticipation of natural consequential damages to downstream riparian lands, of such a character that an ordinary prudent person ought to have foreseen as likely to occur, surely can be considered negligence on the part of the actor, for which the tortfeasor is accountable. Such attitude appears to be gaining support of courts in civil litigation involving damages to person or property.

8. In North Dakota's situation it is estimated that annual maintenance of the authorized bank stabilization works will be $1\frac{1}{2}\%$ of the construction cost. The State Water Commission and the affected Water Management District have already underwritten an annual cost of \$45,000. This in itself is no staggering liability, but the authorization is perhaps less than one-tenth of the cost of the channel and bank improvements required between the Garrison and Oahe reservoirs. On that basis the liability could become rather substantial. Although it has been suggested that the chances for being called upon to perform maintenance, except for minor repairs, is remote, the liability remains a perpetual charge requiring provision for honoring the obligation when and if demanded.

-5-

9. It might be admitted that assurance (a) and even (b), in most instances, are not too onerous. Assurance (c), however, must certainly be considered an unjust, unreasonable and inequitable requirement of local interests in connection with channel improvements or bank protection and stabilization works on the Missouri River where the major purposes of the over-all basin project are for navigation and flood control.

10. With over half a century of experience in the construction of more than 300 dams and reservoirs on the Nation's major, minor, navigable and un-navigable streams, thousands of miles of levees, floodwalls and channel improvements, the Corps of Engineers must long since have learned that bank erosion is the natural and probable result of operating impoundment works. Such disregard of the obvious should not be condoned by requiring that local interests assume the burden of maintaining bank stabilization works to protect against erosion damage from water releases from Federally constructed and operated reservoirs.

11. It is not proposed to seek modification of the assurances provided by the State to the Corps of Engineers in connection with the authorized bank stabilization project now under construction. The Congress should, however, be urged to review and revise its policy adopted 30 years ago governing such improvements and make such modifications therein as justice and equity would dictate. There undoubtedly are many areas and basins in the Mississippi Valley and elsewhere which have problems similar to those of North Dakota. We should endeavor to propose a solution therefor.

12. In the case of the main stem of the Missouri River the situation is somewhat different from other basins. It appears that the Corps of Engineers already is authorized to provide and maintain bank stabilization and erosion protective works at 100% Federal expense. Such authority seemingly was built into the Missouri River Basin Project as and when developed by the

-6-

Corps and authorized by Congress by the Flood Control Act of 1944.

13. The Missouri Basin Survey Commission, created by Executive Order No. 10318 of President Harry S. Truman, dated January 3, 1952, and modified and revised February 19, 1952, composed of three United States Senators, three United States Representatives, and five public members, in its Report submitted to the President January 12, 1953, analyzes the many provisions of the then authorized Missouri River Basin Project. Under Part V of the Report, Chapter 2, at bottom of page 91, is found this statement:

"Cost by purpose. -- Of the Federal cost of approximately $11\frac{1}{4}$ billion dollars, about 29 percent would be spent for irrigation, 28 percent for agricultural measures, 23 percent for flood control, 15 percent for power, 2 percent for navigation, 2 percent for Missouri River bank erosion control work, and the balance, or 1 percent, for municipal water supplies, recreation, fish and wildlife purposes." (Emphasis supplied).

14. The Report continues its "Economic Appraisal of Current and Proposed Programs" under Part V, and in Chapter 5, "Sharing of Cost," on page 105, is shown "Table 1.--Division of costs between the Federal Government and non-Federal sources for resource projects, Missouri Basin," which indicates that the cost of construction, operation, maintenance and replacement of "Main stem erosion control" would be borne by the Federal Government 100 percent. This table has been reproduced and is shown on the next page.

TABLE 1.—Division of costs between the Federal Government and non-Federal sources for resource projects, Missouri Basin

(The allocations of cost used include those by the Corps on main-stem dams. No transfer was made of cost of power to irrigation. Irrigation payments from the tenth to fifteenth year were assumed. Other allocations or period of payment would change the percentage.)

Purpose	Cost of construction borne by:		Operation, maintenance, and replacement borne by:		Total cost of construction and operation, maintenance and replacement borne by:	
	Federal Government	Non-Federal sources	Federal Government	Non-Federal sources	Federal Government	Non-Federal sources
	Percent	Percent	Percent	Percent	Percent	Percent
Municipal and industrial water.....	0	100	0	100	0	100
Power ¹	22	78	0	100	16	84
Agriculture: ²						
Conservation measures.....	55	45	0	100	15	85
Watercourse stabilizing measures.....	79	21	0	100	38	62
Irrigation ³	86	14	0	100	70	30
Flood control:						
Single purpose units.....	91	7	19	81	83	17
Multiple purpose units.....	100	0	100	0	100	0
Total flood control.....	93	2	79	21	95	5
Recreation.....	100	0	100	0	100	0
Fish and wildlife.....	100	0	100	0	100	0
Navigation.....	100	0	100	0	100	0
Main stem erosion control.....	100	0	100	0	100	0
All purposes.....	72	28	14	86	58	42

¹ Except as net power revenues and net water supply revenues are applied to irrigation.

² Revenues anticipated would be sufficient to completely pay cost of construction on the basis of the lowest allocation.

³ Includes that part of the Department of Agriculture Accelerated Program that contributes to water-flow retardation and soil erosion prevention as developed for the Blue River, Salt-Wahoo, Osage, Five-

Mile Creek, Little Sioux, and Upper South Platte watersheds. Excludes H. Doc. 873.

⁴ If payments are continued for a period of 100 years, accompanied by the lowest allocations shown in this study, about 28 percent of the cost of construction would be covered.

Source: Prepared from data supplied by Corps of Engineers, Bureau of Reclamation, and Department of Agriculture.

-8-

15. The foregoing information from the Report of the Missouri Basin Survey Commission, which so far as can be ascertained has not been modified, no doubt accounts for and explains the initial position of the Engineers in its communication to the Commission regarding the bank stabilization project authorized by P. L. 88-253, to the effect that no assurances of local cooperation would be required in connection therewith.

16. At the Commission's direction, Milo W. Hoisveen, its Secretary and Chief Engineer, and its Planning Coordinator (the writer) appeared before a Committee of the North Dakota Legislative Research Committee which met in Fargo on January 27-28, 1966, and made a presentation of the Missouri River bank stabilization problem. That Committee expressed concurrence with the position of the Commission as related at that meeting.

17. On February 6-8, 1966, at the 47th Annual Meeting of the Mississippi Valley Association, attended by more than 1,000 delegates, Mr. Hoisveen and the writer, at the direction of the Commission, made presentations on the subject problem to the 100-member Water Resources Projects Committee, and also attended the deliberations of the 50-member Resolutions Committee. The two Committees and the Convention adopted three amendments to the 1966 MVA Platform. The first of these would apply to all navigable streams and said:

"We urge that the Federal Government assume responsibility for the construction, maintenance and operation of necessary bank stabilization and protective works when increased (above normal) bank erosion has been or is being caused by Federally constructed or operated projects on navigable streams."

It was learned that there are serious bank erosion problems on the Arkansas River, Red River, and Lower Mississippi River where cut-offs are made, and that the affected States would be greatly interested in modification of the congressional policy requiring assurances of local cooperation .

-9-

18. The other two amendments to the Platform apply specifically to the Missouri River. These read:

Bank stabilization.--"Assumption by the Federal Government of its responsibility for the construction, maintenance and operation of adequate bank stabilization and protective works below main stem Missouri River dams where increased bank erosion has caused or is causing damages to riparian lands, without cost to local interests, pursuant to the provisions of the Missouri River Basin Project."

Bank erosion.--"Recommended additional reauthorizations, if necessary, for carrying forward the construction, maintenance and operation, at Federal expense, of the program for bank stabilization and protective works along the Missouri River below Garrison Reservoir."

A former leading member of Congress from one of the Missouri Basin States vigorously endorsed these amendments and pledged his support thereof before congressional committees.

19. There appeared to be genuine support of MVA member States for modification of the congressional policy regarding assurances of local cooperation in connection with main stem bank stabilization works on navigable streams. The southern-most States have even greater problems in connection with streambank erosion than upstream States.

20. It would appear that the next step in this situation is to ascertain the most affected States and the most logical members of Congress willing to sponsor and support legislation to accomplish the desired legislative modification of the policy involved.

Respectfully submitted,


Fred J. Fredrickson
Planning Coordinator
State Water Commission

APPENDIX C

R E S O L U T I O N**EXPRESSING APPRECIATION TO THE NORTH DAKOTA STATE WATER COMMISSION**

**ADOPTED BY
BOARD OF DIRECTORS
GARRISON DIVERSION CONSERVANCY DISTRICT
November 19, 1965**

WHEREAS, the North Dakota State Water Commission has been of tremendous assistance to the Garrison Diversion Conservancy District since it organized the District in July, 1955, in many different ways including:

1. Providing financial assistance to the District;
2. Providing office space for the District office and the use of various office equipment;
3. Providing technical assistance and guidance to the District in its operations and in matters relating to the Garrison Diversion Unit;
4. Assisting in organizing Irrigation in the Garrison Diversion Unit area;
5. Cooperating with the District in furthering the Garrison Diversion Unit authorization in Congress and elsewhere;
6. Providing leadership and guidance, not only to the Garrison Diversion Conservancy District, but to other groups in matters relating to the Garrison Diversion Unit and other aspects of the water resources projects of concern to the Garrison Diversion Conservancy District;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Garrison Diversion Conservancy District in meeting duly assembled in Fargo, North Dakota, this 19th day of November, 1965, that this Board hereby expresses to the North Dakota State Water Commission its most sincere appreciation for the assistance, counsel, advice, guidance, and cooperation it has extended to the Garrison Diversion Conservancy District in its activities since the District was established in July, 1955, and

BE IT FURTHER RESOLVED that copy of this resolution be forwarded to the North Dakota State Water Commission.

s/ Vernon S. Cooper
VERNON S. COOPER, Secretary-Treasurer

S E A L

NORTH DAKOTA STATE WATER COMMISSION
 MONTHLY REPORT OF APPROPRIATIONS AS OF FEBRUARY 28, 1966
 1965 - 1967 APPROPRIATIONS

"GENERAL OPERATIONS"

ACCOUNT	AVAILABLE FUNDS		DISBURSEMENTS		FUND BALANCES		
	APPROPRIATION	RECEIPTS	TO DATE	FEB '66	UNEXPENDED	ENCUMB.	UNENCUMB.
1005 - SALARIES EXP	431,000.00	147,000.00	141,390.43	17,230.82	436,609.57	.00	436,609.57
2005 - FEES & SERVICES	130,000.00	.00	26,253.21	2,507.10	103,746.79	.00	103,746.79
3005 - SUPPLIES & MAT	175,000.00	.00	60,555.54	3,106.07	114,444.46	.00	114,444.46
4005 - EQUIPMENT	50,000.00	.00	4,253.41	2,140.00	45,746.59	.00	45,746.59
	<u>786,000.00</u>	<u>147,000.00</u>	<u>232,452.59</u>	<u>24,983.99</u>	<u>700,547.41</u>	<u>.00</u>	<u>700,547.41</u>

TRANSFERRED \$ 147,000 FROM CONTRACT FUND TO "1005" OCT. 29, 1965

"CONTRACT FUND"

001-770-CONTRACT APPROP.	570,000.00	.00	.00	.00	570,000.00	350,000.00	220,000.00
336-770-CONTRACT "CASH"	422,922.57	70,341.75	403,112.34	15,197.70	90,151.98	55,953.00	34,198.98
	<u>992,922.57</u>	<u>70,341.75</u>	<u>403,112.34</u>	<u>15,197.70</u>	<u>660,151.98</u>	<u>405,953.00</u>	<u>254,198.98</u>

PREPARED BY DAN REISER

SWG FILE C5-1.2

NORTH DAKOTA STATE WATER COMMISSION
STATUS OF CONSTRUCTION BOND GUARANTEE FUND
AS OF FEBRUARY 28, 1966

ACCOUNT	AVAILABLE FUNDS		DISBURSEMENTS		ACCOUNT BALANCES		
	APPROPRIATION	RECEIPTS	TO DATE	FEB '66	UNEXPENDED	ENCUMB.	UNENCUMB.
535-770 CONST. BOND GUAR.	90,000.00	23,455.34	21,455.69	.00	91,999.65	.00	91,999.65
0500 INVESTMENT PRIN.	20,500.00	.00	.00	.00	20,500.00	.00	20,500.00
	110,500.00	23,455.34	21,455.69	.00	112,499.65	.00	112,499.65

NOTE - FUND #535-770 RECEIPTS ARE OBTAINED FROM RETIREMENT OF AND INTEREST ON SECURITIES THAT WERE IN THE COMMISSION'S SINKING FUND IN EXCESS OF THE AMOUNT REQUIRED TO RETIRE THE SERIES "J" BOND ISSUE ON DECEMBER 10 '57. ORIGINAL DISBURSEMENTS FROM FUND #535-770 WERE MADE DURING THE EARLY 1940'S IN ACCORDANCE WITH SECTION 61-02-56 OF THE CENTURY CODE WHICH PROVIDES THAT THE COMMISSION MAY GUARANTEE OR INSURE, OR AGREE TO PAY, THE INTEREST ON AND PRINCIPAL OF COMMISSION REVENUE BONDS, NOT EXCEEDING 20% OF THE PAR VALUE OF ANY SUCH BONDS.

SCHEDULE OF BONDS & INTEREST RECEIVABLE - FUND 535-770

TYPE	DUE DATE	INTEREST RATE	INTEREST REC. TO MATURITY	PRINCIPAL	TOTAL INCOME ANTICIPATED
U.S. SERIES K BONDS	4-67	2.76%	\$ 82.80	\$ 2,000	\$ 2,082.80
U.S. TREASURY BONDS	12-68	2.50%	300.00	3,000	3,262.50
SIoux IRRIG DIST BONDS 1984	SERIALLY	2.25%	3,825.00	15,500	19,325.00
			\$4,207.80	\$20,500	\$24,670.30

EXCESS OVER 90,000 CASH IN FUND 535-770 TO BE CREDITED TO GENERAL FUND. 1-2'58 AG OPINION

NORTH DAKOTA STATE WATER COMMISSION
PAYROLL - FEBRUARY, 1966

NAME	POSITION	GRADE	REMARKS	SALARY	W/TAX	S.S.	INS	BONDS	NET
HOISVEEN, MILO W.	STATE ENGR.	Q-10	INC MAR '65	1,292.00	165.40	54.26	16.30	168.75	887.29
BAESLER, GORDON	DRAFTSMAN	J-4	INC FEB '66	560.00	64.20	23.52			472.28
CHRISTENSEN, RAY	ENGR. AID	H-2	INC FEB '66	425.00	52.40	17.85			354.75
DIEDE, JANE	STENO.	D-5	INC FEB '66	250.00	27.50	10.50	3.25		208.75
DUSHINSKE, RUSSELL	COMM.	15	STA JUL '65	90.00		3.78			86.22
FREDRICKSON, FRED	COORDINATOR	M-7	INC FEB '66	790.00	125.00	33.18	16.30		615.52
FROELICH, LARRY	GEOLOGIST	K-7	INC FEB '66	660.00	76.80	27.72	15.95		539.53
FROEMMING, DALE	ENGR. AID	G-4	INC FEB '66	449.00	51.80	18.86			378.34
GALLAGHER, RICHARD	COMM.	15	STA JUL '61	60.00		2.52			57.48
GLOVER, DALE	HYDROLOGIST	M-5	INC FEB '66	750.00	150.00	31.50			568.50
GRAY, GORDON	COMM.	15	STA JUL '65	15.00		.63			14.37
GRUNSETH, ARLAND	GEOLOGIST	L-7	INC FEB '66	725.00	72.50	30.45	16.30		605.75
HANSON, HAROLD	COMM.	15	STA JUL '65	15.00		.63			14.37
HILAND, LEONE	CH. STENO.	I-2	INC FEB '66	475.00	65.80	19.95	3.35		385.90
JOCHIM, CLIFF	ATTORNEY	G-6	INC FEB '66	420.00	71.60	17.64	16.30		314.46
KNUTSON, LEWIS	DRILLER	H-8	INC FEB '66	500.00	40.30	21.00			438.70
KOPP, OWEN	DRAFTSMAN	F-5	INC FEB '66	350.00	40.90	14.70	15.55		278.85
LINDVIG, MILTON	ENGINEER	L-4	INC FEB '66	675.00	84.60	28.35			562.05
LIVERSAGE, KAY	STENO.	F-6	INC FEB '66	360.00	51.00	15.12	3.25	18.75	271.88
NELSON, C.P.	DRAIN. ENGR.	M-5	INC FEB '66	750.00	103.60	31.50			614.90
PUTZ, ROY	OFF. ASST.	F-2	INC FEB '66	325.00	29.80	13.65	3.25		278.30
REISER, DANUEL	ACCT.	H-8	INC FEB '66	500.00	48.10	21.00	15.55		415.35
SACKMAN, EUGENE	SURVEYER	I-5	INC FEB '66	525.00	43.10	22.05	15.95		443.90
SANDWICK, HAZEN	ENGINEER	N-8	INC FEB '66	870.00	104.80	36.54	16.30		712.36
SCHANTZ, GEORGE	ENGR. AID	F-5	INC FEB '66	350.00	33.20	14.70	16.45		285.65
SCHULZ, DELTON	ENGINEER	L-3	INC FEB '66	750.00	95.80	31.50	16.30		606.40
SCHULZ, JIM	ASST. SECY.	O-5	INC FEB '66	860.00	120.40	36.12	16.30		687.18
SCOTT, CLIFFORD	DESIGN ENGR.	M-5	STA JAN '66	789.40	93.60	33.15	16.30		646.35
SIMENSON, KENNETH	REC. ENGR.	L-4	STA FEB '66	195.42		8.21	16.30		170.91
STEIMBERGER, HENRY	COMM.	15	STA JUL '61	15.00		.68			14.37
TILLOTSON, ANN	RES. ASST.	D-9	INC FEB '66	300.00	34.20	12.60	3.25		249.95
WALTERSON, HOWARD	CONST. SUPT	I-7	INC FEB '66	550.00	61.40	23.10	16.30		449.20
ZIEGLER, VIC	OPER. ENGR.	O-7	INC FEB '66	900.00	110.40	37.80	16.30		735.50
SWG GROUP INSURANCE	- 22			110.00			110.00		.00
				16,650.82	2,018.20	694.71	385.10	187.50	13,365.31
VOELLER, PIUS	FOREMAN	H-8	INC FEB '66	580.00		24.36	15.55		540.09
				17,230.82	2,018.20	719.07	400.65	187.50	13,905.40