

STATE WATER CONSERVATION COMMISSION  
MINUTES OF MEETING  
Held in Office of State Water Commission  
Bismarck, North Dakota  
April 30, 1963

MEMBERS PRESENT:

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

OTHERS PRESENT:

Robert Calton, Corps of Army Engineers, St. Paul

The meeting was called to order at 9:40 a.m. by Vice Chairman Lunseth. Present were Commissioners Corwin, Steinberger, Einar Dahl, Fred J. Fredrickson and Secretary Hoisveen. Secretary Hoisveen, at the request of Governor Guy, represented the Governor at the Commission meeting.

APPROVAL OF MINUTES OF  
MARCH 20, 1963

tributed. Motion carried.

It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the minutes of the March 20, 1963 minutes be approved as dis-

APPROVAL OF FINANCIAL  
STATEMENTS FOR MARCH  
AND APRIL 1963

statements for March and April 1963 be adopted. Motion carried.

Secretary Hoisveen reviewed the present status of the various funds of the State Water Commission. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the financial

WATER RIGHTS

Commissioner Steinberger inquired as to whether water rights could be purchased. It was pointed out that under the present law water rights cannot be purchased; however, this law was amended by the 1963 Legislature to permit the landowner to sell his water right. There was considerable discussion on the purchase of water rights. Mr. Fredrickson recommended that after July 1st it might be well to devote an entire meeting, or call a special meeting, to acquaint the commissioners with the revisions that have been made in the water laws.

RESOLUTION AUTHORIZING THE  
ESTABLISHMENT OF THE OLIVER  
COUNTY WATER CONSERVATION  
AND FLOOD CONTROL DISTRICT

the formation of the district. The resolution establishing the Oliver County

Secretary Hoisveen reported that a meeting had been held in Center relative to the establishment of a water conservation and flood control district for Oliver County. Present were approximately 50 persons. Only three persons indicated objections to

Water Conservation and Flood Control District was read by Secretary Hoisveen. It was moved by Commissioner Gallagher and seconded by Commissioner Steinberger that the resolution authorizing the establishment of the Oliver County Water Conservation and Flood Control District be adopted. The motion carried. (See Appendix A.)

**RESOLUTION AUTHORIZING THE ESTABLISHMENT OF THE MORTON COUNTY WATER CONSERVATION AND FLOOD CONTROL DISTRICT**

Secretary Hoisveen indicated that hearings were held in Glen Ullin and Mandan regarding the establishment of the Morton County Water Conservation and Flood Control District. The majority of those present favored the creation of the district.

The district considered the entire county, with the exception of the area within the boundaries of the Lower Heart District. The Secretary then read the resolution authorizing the district. It was moved by Commissioner Gallagher and seconded by Commissioner Corwin that the resolution authorizing the establishment of the Morton County Water Conservation and Flood Control District be adopted. Motion carried. (Appendix B)

**TIOGA DAM COST PARTICIPATION**

The State Water Commission was informed that it has worked with the City of Tioga for approximately 8 years relative to the construction of a dam above

that city which would increase the availability of water for municipal water supply as well as provide flood protective works for a section of town which is generally flooded in the spring of the year from freshets and snow melt that enters the city from a coulee which drains a 14 mile area north of the town. The plan proposed to the city commissioners would furnish the city with 600 acre-foot reservoir storage which would have a surface area of approximately 80 acres. A resolution from the city of Tioga, together with an itemized statement of the costs of the dam was filed with the State Water Commission. The total cost of this project would approximate \$106,000. The State Water Commission's share would be \$32,000. It was moved by Commissioner Corwin and seconded by Commissioner Einar Dahl that the State Water Conservation Commission participate with the City of Tioga in the construction of a dam, the Commission's share not to exceed \$32,000. Motion carried.

**OUTDOOR RECREATION**

A report was made to the Commission members on the Outdoor Recreation meetings, which had been called by Governor Guy, of all agencies interested in outdoor recreation. Statements were filed by the agencies. The statements, together with a summarization of the statements, were bound in book form by the State Water Commission. Secretary Hoisveen stated there was a definite lack of coordination between the State Water Conservation Commission, State Game and Fish Department and other interests in developing recreational areas, such as tree planting, sanitation, etc. Sanitation in most of the recreation areas is very poor. Lake Metigoshe Park was cited as an example. It was the opinion of the Commission members that the local entities should be responsible for creating and maintaining the recreation areas. It was suggested that the creation of recreation areas where the State Water Commission constructs dams be made a part of the contract which the Commission enters into prior to construction. It was suggested that the contract carry a provision whereby the planting of trees, construction of sanitation facilities and their maintenance be provided for. It was also suggested that beaches be provided where possible. Secretary Hoisveen was of the opinion that areas at Armourdale,

Smisek and Lake Metigoshe could be established as recreational areas and the State Water Commission could go into these areas on a crash program and get the work done before the visitors come to these particular areas. It was estimated that this work could be done for approximately \$5,500. This money would be matched by other organizations. It was moved by Commissioner Steinberger and seconded by Commissioner Corwin that the Secretary be authorized an expenditure of \$5,500 for necessary facilities in recreational areas, such as sanitation, tree planting, work on beaches and other necessary work to develop recreational areas. Motion carried.

#### BLABON DAM

The County Commissioners of Steele County have advised the State Water Commission that Blabon Dam is badly deteriorated and is in need of extensive repairs. The County Commissioners, by a resolution on file in the Water Commission office, request that the repairs be made on a 50-50 basis. The cost to the Water Commission would approximate \$1,000. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the Water Commission participate with the County Commissioners in the repair of Blabon Dam up to \$1,000. Motion carried.

#### CONTRACTUAL AGREEMENT WITH LEGAL ENTITIES FOR TREE PLANTINGS ETC.

It was moved by Commissioner Corwin and seconded by Commissioner Gallagher that there be incorporated in all contracts for the construction of a dam in cooperation with legal entities an agreement that a certain per cent of the land available be planted to trees and that sanitary facilities be provided. Motion carried.

It was suggested that the cost in connection with the tree plantings etc. be computed in the original estimate.

#### OAK CREEK GORGE SURVEY REQUEST

The Bottineau County Wildlife Federation is requesting that the State Water Commission investigate the Oak Creek watershed from the City of Bottineau to Lake Metigoshe for purposes of constructing a dam to provide flood protection, water recreation and to enhance the city water supply. A gorge located in the Turtle Mountains on Oak Creek presents an excellent appearing dam site. A survey is necessary to determine its potential on the basis of foundation material and capacity. A \$200 deposit has been received for the survey. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the Secretary is authorized to make the necessary survey for the purpose of constructing a dam to provide flood protection, water recreation and municipal water supply. Motion carried.

#### ROLLA REQUEST FOR GROUND WATER SURVEY

A request was received from the City of Rolla for a ground water survey to supplement the city water supply. A remittance in the sum of \$1,500 accompanied the request. It was moved by Commissioner Math Dahl and seconded by Commissioner Corwin that the State Water Commission conduct a ground water survey for the city of Rolla. Motion carried.

#### AMENIA GROUNDWATER SURVEY STUDY

Secretary Hoisveen stated that the Village of Amenia is requesting a groundwater study. The fact that it will be hard to find quality water in the vicinity of Amenia was called to the attention of the village officials;

however, they requested that the State Water Commission make such an investigation. It was moved by Commissioner Steinberger and seconded by Commissioner Math Dahl that a ground water survey be made for the Village of Amenia. Motion carried.

**CASS COUNTY DRAIN #2** There has been considerable controversy over whether or not Cass County Drain #2 should be constructed. It was suggested that the water be channeled from Rush River Drainage Basin into the Maple River Basin, which suggestion met with opposition. The Corps of Engineers constructed a project on the Rush River several years ago. Drain #2 is an unfinished portion of the Rush River Project. At the direction of the Commission, the Secretary wrote the Corps of Engineers explaining that this should be considered as a part of the original project and should be constructed at an early date. The Corps of Engineers replied by saying that based on a preliminary review of the data furnished, it would appear appropriate to investigate the flood problem of the area drained by Cass Drain #2, under the special continuing authority for small flood control projects. They advised that they would initiate the work required for preparation of the reconnaissance report by viewing the problem in the field at an early date.

**GIRL SCOUT ROUNDUP  
1965** The Secretary informed the Commission that two sites in North Dakota are a part of the three sites that remain in consideration for the 1965 Girl Scout Roundup. It is anticipated that 40,000 girls will attend the Roundup, in addition to parents and other visitors. Legislation passed by the 38th Legislature designated State Engineer Hoisveen as a member of the Girl Scout Commission to aid in obtaining the Roundup for North Dakota. The two possible sites in North Dakota where the Girl Scout Roundup could be held are below the Garrison Dam and in the vicinity of the Roosevelt Park. The State Water Commission has been requested to make a survey for a possible water supply for the Roundup. It was moved by Commissioner Corwin and seconded by Commissioner Math Dahl that the Secretary be authorized to make necessary surveys in the field of ground water and such surface surveys as might be needed for the Girl Scout Roundup. Motion carried.

**CITY OF ANTLER** The city auditor of Antler wrote to the Water Commission expressing his appreciation for the dam built by the State Water Commission.

**STOCKWATER IMPOUNDMENTS  
IN MOUSE RIVER BASIN** During the past several years the State Water Conservation Commission has not been in favor of issuing permits for stock water impoundments in the Mouse River Basin. It has been opined that the stream is over appropriated and would probably lead to difficulties if highly depletionary stock water dams were constructed in large numbers. The Fish and Wildlife Service hold the majority of the rights on this basin. Permits have been filed by that agency indicating they have already constructed stock water dams without first receiving permission from the Commission. The dams have been constructed through the Soil Conservation Service. It was the opinion of the State Engineer that the farmers should be allowed to request a permit to build a dam on the same basis as the Sport Fisheries and Wildlife Service. Under new legislation effective July 1, plans are to be filed with the State Water Commission. It was the consensus of the Commission members that no action be taken at this time, but to wait until the new law becomes effective.

MISSOURI BASIN INTER-  
AGENCY COMMITTEE MEETING  
IN FARGO, OCTOBER 17, 1963

The Missouri Basin Inter-Agency Committee will be meeting in Fargo on October 17, 1963. The program will cover several items of interest to North Dakota. It was agreed that a presentation should be made on the new legislation on North Dakota water laws. It was recommended that the meetings be held in the Town House Motor Hotel in Fargo, as it would provide visitors with a more impressive view of the city. Commissioner Corwin indicated if additional conference room is needed space can be rented in the Auditorium, which is across the street from the Hotel.

RED RIVER BASIN PLANNING -  
CORPS OF ENGINEERS

At the invitation of the Commission, Robert Calton, Chief of the District Planning Section, of the U.S. Army Engineer District, St. Paul, Corps of Engineers, was present for a conference and discussion on the comprehensive basin planning for the Red River of the North.

Mr. Calton presented a fine summary of the objectives of and approach to such basin planning. (See Appendix C). He responded to a number of questions by the Commissioners and contributed valuable information to a general discussion of the problems involved. He pointed out that the venture would include the states and interested federal agencies on the Commission. The planning funds would be made available to the Corps who in turn would allocate funds to the other agencies involved.

After Mr. Calton's departure, the Commission members further considered the matter and it was the consensus that an attempt should be made to obtain funds for carrying on such planning work in fiscal year 1964.

It was, therefore, moved by Commissioner Math Dahl and seconded by Commissioner Corwin that the Commission go on record as approving the investigation and planning program for the Red River basin as outlined by Mr. Calton, and that an effort be made to obtain up to \$1.5 million for such planning and investigational work conducted by the Corps of Engineers. The motion was unanimously adopted.

WORK PLAN N. B. FOREST  
RIVER NO. 5 - SOUKUP DAM

The Walsh County Water Conservation and Flood Control District having submitted to this Commission for its consideration completed plans and specifications for a public works project on the North Branch of the Forest River Watershed, known as Work Plan N. B. Forest River No. 5, Soukup Dam, on the recommendation of the State Engineer, who is also the Chief Engineer and Secretary of the Commission, it was moved by Commissioner Math Dahl and seconded by Commissioner Gallagher that the said plans and specifications be approved without change or modification, which motion was unanimously carried. The Secretary was directed to inform the District Board of Directors of the Commission action and advise the Board to take appropriate action to notify the affected landowners of such action.

STORAGE - MIDDLE-SOUTH  
BRANCH DAM IN MIDDLE-  
SOUTH BRANCH FOREST RIVER  
WATERSHED

Secretary Hoisveen stated that after July 1st the State Water Commission could participate in the cost of various dam structures. The Soil Conservation Service will be constructing dams in various watersheds in the State. Some of these structures will be inadequate because of the 5,000 acre limitations of Public Law 566. It appears that additional water storage capacity would be available in the Middle-

South Branch of the Forest River Watershed. The preliminary survey indicates, according to a letter received from Mr. Cratty, Assistant State Conservationist of the Soil Conservation Service, addressed to the Walsh County Water Conservation and Flood Control District, a storage capacity for at least an additional 2,000 acre-feet. Secretary Hoisveen stated that after July 1st, under House Bill 525 the Commission could participate in this and legislation should be sought for the purpose of creating a revolving fund whereby the Commission would receive revenue from the Municipalities and other agencies who desire to purchase this water from the Commission at a later date. This type of arrangement might be ideal on the Park River and Square Butte Creek. The revenues that might be eventually returned could possibly make such a feature of the Commission self-sustaining. It was suggested that if the Commission desired, the staff would investigate this matter further and work it out on the basis of the hydrology of the areas affected. It was moved by Commissioner Corwin and seconded by Commissioner Math Dahl that the State Engineer be authorized to investigate further the possibility of a revolving fund, whereby the Commission would receive revenue from municipalities and other agencies desiring to purchase water from the Commission. Motion carried.

**BUFORD-TRENTON PUMPING  
PLANT PERFORMANCE TEST**

The Commission was informed that there was a great deal of difficulty encountered with the Buford-Trenton Pumping plant last summer. The flows the Corps were releasing last fall were low. The Commission staff found that considerable degradation had occurred in the channel of the Missouri River near the pump site as the Corps had made a three mile cutoff channel in the vicinity of the Buford-Trenton pumping plant. This resulted in the lowering of the water level in the intake to such a degree as to make the water unavailable at times. The Corps at the insistence of the Commission took care of this situation this winter by lowering the intake canal several feet and adding suction bells near the bottom of the pumps. When the Corps completed the work they requested the Buford-Trenton officials to sign a release indicating their satisfaction with the work. The State Water Commission recommended that the Buford-Trenton Irrigation District wait one season before signing, to see if the work functions satisfactorily.

**NORTH DAKOTA WATER USERS  
ASSOCIATION DUES**

The State Water Conservation Commission's dues to the North Dakota Water Users Association are due in the sum of \$1,500. The Water Users Association has been of tremendous help to the State Water Commission, especially during the current session of the Legislature. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the State Water Commission's dues in the sum of \$1,500 to the North Dakota Water Users Association be paid. Motion carried.

**AUTOMATIC RECORDING  
DEVICES FOR GROUND  
WATER PROGRAM**

The Commission was told that two automatic recording devices, for which the Commission authorized purchase, were bought by the Commission last fall. The devices have proven to be so successful that the State Water Commission now desires to purchase two more recording devices which would cost about \$500 a piece and further reduce the number of attendants necessary at tests. It was moved by Commissioner Steinberger and seconded by Commissioner Einar Dahl that the Commission purchase two automatic recording devices for the groundwater program at \$500 a piece. Motion carried.

**GREEN RIVER AND PIPESTEM  
DAMS - MEETING WITH OMAHA  
DISTRICT CORPS OF ENGINEERS**

The Corps of Engineers has completed its studies on the Green River. These studies indicate that development on the Green River is not justified at this time. The Cities of Belfield and Dickinson have not concurred in the unfavorable report of the Corps. Because of this fact, the Corps believes it desirable to hold a meeting in the office of the State Water Commission with representatives of the Corps and the cities of Belfield and Dickinson to fully discuss the matter so the Corps' report can be completed.

Developments on the James River study indicate that submission of the South Dakota portion of the report may be delayed for several years in response to a request from local interests; however, the Corps' studies indicate that a project for reservoir storage on Pipestem Creek in North Dakota is justified. The Corps is considering the submission of an interim report on the North Dakota portion of the James River recommending construction of the Pipestem Dam. It was suggested that a meeting be held in Jamestown for the purpose of discussing the potential of the Pipestem project with local interests. The Commission members requested that the Secretary arrange a meeting in Jamestown to determine the sentiments of that locality regarding the proposed Pipestem Dam. The State Legislature passed a resolution favoring construction.

**BANK STABILIZATION**

Mr. Hoisveen reported that he had attended a meeting of the Coordinating Committee of the Missouri River Main Stem program. At this meeting he presented a statement on bank stabilization necessary between Bismarck and the Garrison Dam, which should be an integral part of the Missouri River Basin.

**CONCRETE SPRAY - WESTGATE**

The Westgate Concrete Spray Co. is a North Dakota corporation engaged in the specialized process of pneumatic concrete placement. One of the major fields of concrete application is the repair of existing dam spillways. This type of work has been done with a state-owned crew operating under the supervision of the State Engineer; however, this company wonders if the time has not come to encourage the growth of private enterprise in this field. The Commission members recommended that the Water Commission let bids on pneumatic concrete placement to provide a study whether or not such work may be performed at a more reasonable figure than through force account.

**MISSISSIPPI VALLEY ASSN.  
MEETING IN BISMARCK IN  
JUNE**

Mr. Smith, Executive Secretary of the Mississippi Valley Association, wrote and informed Commission staff members that the Executive Committee of the Mississippi Valley Association will be meeting with the Governor and the State Engineer of the State Water Commission on June 10 in Bismarck. It was suggested that a meeting of the Commission be called in Bismarck on this date whereby the Commission might be present and also meet with the Mississippi Valley Association executive committee. The Commission concurred.

**LAND APPRAISAL STUDY**

A study is to be made on the Oahe land acquisition problem. The State Highway Department is going to take care of the study on the appraisal to determine the value of some of this land which is being acquired. The State Water Commission, which has been



- #1072                   The State Game and Fish Department requests the right to divert 10 acre-feet of water in the watershed located in Section 15, Township 135 North, Range 67 West for recreational purposes. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the State Game and Fish Department be granted the right to divert 20 acre-feet of water in the watershed located in Section 15, Township 135 North, Range 67 West for storage and 10 acre-feet for annual use for recreational use. Motion carried.
- #1074                   Calvert Exploration Co., Bismarck, requests the right to divert 1 acre-foot of water from underground sources for industrial use. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that Calvert Exploration Co. be granted the right to divert 1 acre-foot of water from underground sources for industrial use. Motion carried.
- #1075                   Walsh County Water Conservation and Flood Control District, Grafton, requests the right to divert 1386.83 acre-feet for storage plus 267 acre-feet annual use from the Middle Branch of the Forest River for recreation and wildlife purposes. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the Walsh County Water Conservation and Flood Control District be granted the right to divert 1386.83 acre-feet of water for storage plus 267 acre-feet annual use from the Middle Branch Forest River for recreation and wildlife purposes. Motion carried.
- #1076                   American Crystal Sugar Company, Denver, request the right to divert 4,250 acre-feet of water from the Red River for industrial use. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that the American Crystal Sugar Co. be granted the right to divert 4,250 acre-feet of water from the Red River for industrial use. Motion carried.
- #1078                   Buford-Trenton Irrigation District, Trenton, requests the right to divert 5197.4 acre-feet from Trenton Lake to irrigate 2588.8 acres. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that Buford-Trenton Irrigation District be granted the right to divert 5197.4 acre-feet of water from Trenton Lake to irrigate 2588.8 acres. Motion carried.
- #1077                   John Richman, Williston, requests the right to divert 90 acre-feet of water from Little Muddy Creek to irrigate 81.9 acres. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that John Richman be granted the right to divert 22½ acre-feet of water from Little Muddy Creek to irrigate 15 acres. Motion carried.
- #1079                   Lloyd and Arvey Hartsoch, White Earth, request the right to divert 320 acre-feet of water from the Garrison Reservoir to irrigate 160 acres. It was moved by Commissioner Corwin and seconded by Commissioner Steinberger that Lloyd and Arvey Hartsoch be granted the right to divert 320 acre-feet of water from the Garrison Reservoir to irrigate 160 acres. Motion carried.



## APPENDIX A

SWCC Project #991

R E S O L U T I O N**AUTHORIZING THE ESTABLISHMENT OF THE OLIVER COUNTY WATER  
CONSERVATION AND FLOOD CONTROL DISTRICT EMBRACING ALL OF  
OLIVER COUNTY**

WHEREAS, Oliver County on the 19th day of December, 1962, filed with the State Water Conservation Commission its petition requesting the establishment of a water conservation and flood control district and embracing within its boundaries the county in its entirety; and

WHEREAS, said petition was accompanied by a certified copy of the resolution of the Board of County Commissioners authorizing and directing the chairman of the board and the county auditor to execute and file the petition on behalf of the county; and

WHEREAS, a public hearing on the petition was held on the 13th day of March, 1963 in the Oliver County Court House, in Center, the county seat of the county, pursuant to notice thereof published in the Center Republican, a weekly newspaper of general circulation in Oliver County on the 7th day of March, 1963; and

WHEREAS, due to the oversight in the publication of the notice of hearing had on the 13th day of March, 1963, another hearing was held in the Log Cabin Annex to the Oliver County Court House on the 25th day of March, 1963, pursuant to notice thereof again published in the Center Republican and on the 15th day of March, 1963 in the Mandan Daily Pioneer, a daily newspaper of general circulation in Oliver County; and

WHEREAS, the report of the Chief Engineer of this Commission and evidence submitted at the hearing on the petition held, as aforesaid, on the 25th day of March, 1963, have convinced this Commission that adequate development of various watersheds, prevention of flood damage, determination of sources of ground-water suitable for domestic and other purposes and conservation of water in water-courses for irrigation and recreation, can best be attained through and by a water conservation and flood control district;

NOW, THEREFORE BE IT RESOLVED by the State Water Conservation Commission in meeting regularly assembled this 30th day of April, 1963, that the petition of Oliver County for establishment of a water conservation and flood control district is hereby approved and the chairman and secretary of the Commission are authorized and directed to execute its order establishing a water conservation and flood control district to be designated and known as the Oliver County Water Conservation and Flood Control District until the close of June 30, 1963 and thereafter as the Oliver County Water Management District, embracing within its borders Oliver County in its entirety.

## APPENDIX B

R E S O L U T I O NAuthorizing the Establishment of the Morton County Water  
Conservation and Flood Control District

WHEREAS, Morton County, North Dakota, acting by and through its Board of County Commissioners, on the 15th day of February, 1963, filed in the office of the State Water Conservation Commission its petition requesting the establishment of a water conservation and flood control district, embracing within its boundaries the territory in Morton County, North Dakota, excepting therefrom, however, the area within the county included within an existing district designated the Lower Heart River Water Conservation and Flood Control District; and

WHEREAS, said petition was accompanied by a certified copy of the resolution of the Board of County Commissioners authorizing and directing the chairman thereof and the county auditor to execute and file on behalf of Morton County such petition; and

WHEREAS, public hearings on the petition were held on the 13th day of March 1963 in the County Court House in the City of Mandan and in the City Auditorium of Glen Ullin pursuant to notice published in the Mandan Daily Pioneer on the 27th day of February 1963, and pursuant to notices posted in conspicuous places in various post offices throughout Morton County; and

WHEREAS, the report of the Chief Engineer of this Commission and evidence adduced at the hearings disclose to the satisfaction of this Commission that prevention of flood damage and adequate watershed development can best be accomplished throughout the area of the proposed water conservation and flood control district by the establishment of such district;

NOW, THEREFORE, BE IT RESOLVED by the State Water Conservation Commission in meeting regularly assembled this 30th day of April, 1963, that the petition of Morton County be and is hereby approved and that the chairman and secretary of the Commission are authorized and directed to execute its order establishing a water conservation and flood control district designated and known as the Morton County Water Conservation and Flood Control District, and on and after July 1, 1963 as the Morton County Water Management District, including within its boundaries, the territory embraced within Morton County, North Dakota, excepting and excluding therefrom the area included within the boundaries of the Lower Heart River Water Conservation and Flood Control District of Morton County, North Dakota.

## APPENDIX C

30 April 1963

## COMPREHENSIVE BASIN PLANNING

OBJECTIVE

Concern with water and related land resources development in any river basin or region is basically motivated by a desire to provide a more favorable economic and social climate in which the residents of the basin can live. Control and storage of water for quality control, flood protection, recreation, fish and wildlife habitat, increased agricultural production through proper agronomic practices, supplemental irrigation, and where appropriate provision for navigation, hydroelectric power generation, and even mosquito control, contribute to the economic and social well-being of a basin.

The river basin approach to water and related land resource development encompasses a wide range of techniques of the engineer, economist and sociologist and requires the highest degree of professional excellence, patience and cooperation in the planning effort.

In seeking solutions to the many problems in specific areas of concern, we will, if we become too involved in details, lose sight of the objective--the optimal utilization of water and related land resources in the interest of contributing to the economic and social well-being of the people of the area. Optimal utilization means from a comprehensive public viewpoint:

- a. Providing the best use or combination of uses of water and related land resources to meet all foreseeable short- and long-term needs;
- b. Obtaining the full advantage of multipurpose development;
- c. Reconciling problems of competition in the use of the resources; and
- d. Coordinating the mutual responsibilities of different agencies and levels of Government and other interests concerned with the use of water and related land resources.

THE RIVER BASIN APPROACH

We propose to achieve this objective through comprehensive long-range planning in cooperation with all appropriate agencies, using a river basin and its associated area of influence as a basis for analysis. Thus the river basin is visualized as an organic whole, offering a reasonable and logical basis for economic development.

As we understand it, current thinking concerning the basin planning approach envisions three phases of study:

- a. Major basin "framework" study;
- b. Detailed subbasin or subarea studies;
- c. Specific project or specific purpose studies.

All three phases may be done separately or all or any combination might be accomplished simultaneously. Basically, the "framework" study should make broad appraisals of the needs, both short-term and long-term, and develop the general nature and scope of a basin plan which would identify the means by which these needs can be met, but reserving the details for the subbasin or subarea studies and specific project studies. Thus, the "framework" study must be dynamic, subject to continual revision and updating to meet changing needs. The "framework" study would not be designed to carry any recommendation for project authorization.

Where the "framework" study indicates a need, a detailed subbasin study would be accomplished to recommend a specific plan and projects for authorization. The third phase, or specific project studies, recognizes the need to solve certain urgent local problems without waiting for the more general studies.

Within each of the "framework" and detailed subbasin studies, there will be distinct elements of study which must be accomplished in a logical order. These are:

a. Appraisal of the current and prospective economic potential and capabilities of the area and the role of water and related land resources development relative to such capabilities. This appraisal will encompass two related investigations - (1) Inventory of existing water and related land resources, including stream-flow data, soil types, inherent productivity of soils; and (2) Economic Base Study including, among others, population projections, industrial and agricultural expansion, urban development and personal income. All of the above information is necessary to a realistic appraisal of the basin potential and capabilities and the ultimate contribution which can be made to the economic and social well-being of the area by water and related land resource development.

b. Examination of the present and projected water needs which will be necessary to insure that water resources will be available in adequate quantities, of satisfactory quality, and at the appropriate time, to contribute to the projected economic development. The development of these needs is the end result of the Economic Base Study. Included would be requirements for industrial, domestic and agricultural water supply, water to meet quality-control requirements, to meet recreation needs, to preserve and enhance wildlife habitat, navigation, and hydroelectric power generation.

c. The development of a plan of potential improvements best suited for timely development of those water and related land resources which would satisfy present and projected needs. Based upon all available data, both engineering and economic, and recognizing existing legal and institutional restraints in the area, a tentative plan would be developed which would be basically the summation of preliminary views of each cooperating agency developed from their investigations of specific areas of concern. From this tentative plan the search for the optimal plan would be made by modification of the tentative plan through incremental analysis, resolution of competition for water between purposes, and other areas of evaluation procedures; all through detailed cooperative effort.

The optimal plan so developed would not be intended to necessarily impose a definite limitation on the scope of development. Rather, it would be considered as a base from which the planners could make reasoned judgment as to the desirability of extending, or otherwise modifying the plan in order to meet social

objectives which would not be evaluated on a monetary basis.

It is our view that, inherent in the search for a basin plan, comparable alternative solutions to the same problems will arise. In this case, both alternatives could be presented.

We also believe that the search for a plan should recognize the possibilities in reasonable human adjustments to the flood hazards, including such measures as flood plain regulation, floodproofing of buildings and the effective use of flood plain information studies where appropriate use can be made.

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION  
 MONTHLY REPORT OF APPROPRIATIONS AS OF MAY 31, 1963  
 1961 - 1963 APPROPRIATIONS

FUND	AVAILABLE FUNDS		DISBURSEMENTS		FUND BALANCES		
	APPROPRIATION	RECEIPTS	TO DATE	MAY '63	UNEXPENDED	ENCUMB.	UNENCUMB.
1. COMM PER DIEM & EXP	6,000.00	.00	5,569.80	594.33	430.20	21.76	408.44
2. ADMINISTRATION	62,000.00	1,525.64	59,675.01	2,103.51	3,950.63	.00	3,850.63
3. MAINTENANCE OF DAMS	150,000.00	117,544.40	264,094.26	2,946.05	3,450.14	304.64	3,145.50
4. INT'L & INTERSTATE EXP	10,000.00	.00	9,985.83	218.85	14.17	.00	14.17
5. TOPOGRAPHIC SURVEYS	30,000.00	.00	21,901.97	2,469.22	8,098.03	8,098.03	.00
6. HYDROGRAPHIC SURVEYS	27,500.00	.00	27,500.00	.00	.00	.00	.00
7. ENGR & GEOL SURVEYS	50,000.00	25,721.00	72,942.43	2,315.70	2,778.57	731.54	2,047.03
8. COOP WITH US DEPT.	60,000.00	559.85	55,172.11	4,332.24	5,387.74	3,086.60	2,301.14
9. ENGR INVESTIGATIONS	145,000.00	6,772.61	138,316.94	5,773.45	13,455.67	2,385.89	10,869.78
10. ADM OF WATER RIGHTS	10,000.00	.00	9,761.21	774.77	238.79	.00	238.79
	550,500.00	152,123.50	664,919.56	21,528.12	37,703.94	14,828.46	22,875.48

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION  
STATUS OF CONTINUING APPROPRIATIONS  
AS OF MAY 31, 1963

FUND	AVAILABLE FUNDS		DISBURSEMENTS		FUND BALANCES		
	APPROPRIATION	RECEIPTS	TO DATE	MAY '63	UNEXPENDED	ENCUMB.	UNENCUMB.
20. MULTIPLE PURPOSE "CARRIED FORWARD"	300,000.00 163,533.61	78,219.55	203,262.37	5,309.70	332,540.79	301,650.46	36,890.33
21. CONST BOND GUARANTEE	90,000.00	20,300.79	20,539.00	.00	69,761.79	.00	39,761.79
22. SHOP BLDG "SPECIAL"	30,000.00	.00	29,998.04	.00	1.96	.00	1.96

NOTE- FUND #21 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 #21 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 NO. 21

TYPE	DUE DATE	INTEREST RATE	INTEREST REC. TO MATURITY	PRINCIPAL	TOTAL INCOME ANTICIPATED
U.S. SERIES K BONDS	5-65	2.76%	\$ 82.80	\$1,500	\$1,582.80
U.S. SERIES K BONDS	4-67	2.76%	220.80	2,000	2,220.80
U.S. TREASURY BONDS	12-68	2.50%	450.00	3,000	3,450.00
SIOUX IRRIG DIST BONDS	1984 SERIALY	2.25%	4,533.75	16,000	20,533.75
			<u>\$5,287.35</u>	<u>\$22,500</u>	<u>\$27,787.35</u>
			FUND BALANCE . . . . .		89,761.79
			LESS ORIG. APPROPRIATION . . . . .		-90,000.00
				EXCESS . . . . .	\$27,549.14

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION  
PAYROLL - MAY 31, 1963

SALARIED EMPLOYEES

NAME	POSITION	PAY GRADE	REMARKS	SALARY MAY '63	WITH. TAX	SOC. SEC.	INS	BONDS	NET
HOISVEEN, MILO W.	STATE ENGR	O-9	INC JUL '61	950.67	139.20	34.46	21.20	56.25	699.56
ANDERSON, LARRY	RODMAN	C-9	INC MAR '63	237.67	32.80	8.62			196.25
BAESLER, GORDON	DRAFTSMAN	G-5	INC JUL '62	410.67	53.80	14.89			341.98
CHRISTENSEN, RAY	ENGR AID	D-5	INC APR '63	252.00	35.40	9.14			207.46
COOPER, VERNON S.	ASST SECY	1-5	DEC OCT '62	262.84	35.00	9.53	21.20		197.11
ENGSTROM, VIRGLE	RODMAN	C-7	INC MAR '63	226.17	30.70	8.20			187.27
FREDRICKSON, FRED	COORDINATOR	K-3	INC MAR '63	600.00	81.60	21.75	21.20		475.45
FROELICH, LARRY	GEOLOGIST	H-2	INC DEC '62	429.17	37.40	15.56			376.21
GLOVER, DALE	HYDROLOGIST	J-8	STA SEP '62	625.17	101.60	22.66			500.91
GRINDBERG, ALAN	ENGINEER	L-4	INC MAR '63	672.17	108.80	4.37			559.00
HILAND, LEONE	CH STENO	F-8	INC JUL '62	383.17	48.40	13.39	8.20		312.68
JOB, RHODA	FILE CLERK	C-6	INC OCT '62	237.67	22.90	8.62	8.20		198.05
KNUTSON, LEWIS	DRILLER	F-10	INC AUG '62	402.17	43.80	14.58			343.79
LIVERSAGE, KAY	STENO	B-9	INC SEP '62	220.42	30.00	7.99	7.90		174.53
NELSON, O. P.	ENGINEER	L-4	INC MAR '63	672.17	108.80	24.37			539.00
PUTZ, ROY	OFF ASST	C-4	INC JUL '62	208.92	17.80	7.57	7.90		175.65
RIVINIUS, MERRIL	ENGINEER	J-5	INC MAR '63	578.67	102.60	20.98	8.45		446.64
SACKMAN, EUGENE	SURVEYOR	G-5	INC MAR '63	410.67	33.80	14.89	20.45		341.53
SANDWICK, HAZEN	ENGINEER	M-5	INC DEC '62	747.67	83.20	27.10	20.45	37.50	579.42
SCHMID, ROGER	GEOLOGIST	H-4	INC JUL '62	454.17	41.00	16.46			396.71
SCHULZ, DELTON	ENGINEER	J-5	INC MAR '63	578.67	92.60	20.98			465.09
SCHULZ, JIM	ACCOUNTANT	K-3	INC JUL '62	600.67	91.60	21.77			487.30
SWENSON, HELEN	STENO	E-2	INC DEC '62	274.67	49.70	9.96			215.01
VOELLER, PIUS	FOREMAN	G-5	INC MAR '63	410.67		14.89			395.78
WALTERSON, HOWARD	CONST SUPT	H-5	INC MAR '63	466.67	64.60	16.92	20.45		364.70
WALTERSON, JEAN	DRAFTSMAN	E-4	INC SEP '62	316.67	36.90	11.48			268.29
ZIEGLER, VICTOR	ENGINEER	M-5	INC DEC '62	747.67	113.20	27.10	20.85		586.52

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION  
PAYROLL - MAY 31, 1963

HOURLY EMPLOYEES

NAME	POSITION	PAY GRADE	REMARKS	SALARY MAY '63	WITH. TAX	SOC SEC	INS	BONDS	NET
BUECHLER, LARRY	LABORER	1.50	STA MAY '63	72.00	10.80	2.61			58.59
ERICKSON, LELAND	LABORER	1.50	STA MAY '63	103.50	14.20	3.75			85.55
JOHNSON, TODD	OFF ASST	1.50	RES MAY '63	156.00	19.20	5.66			131.14
KNUTSON, LANNY	DRILLER	2.00	INC APR '63	601.00	97.50	21.78			481.72
PETERSON, JOHN	OPERATOR	2.15	INC APR '63	523.53	82.80	18.98			421.75
SENGER, ANTON	OPERATOR	2.10	INC APR '63	563.85	90.00	20.44			453.41
VOLK, DUANE	LABORER	1.50	STA MAY '63	78.00	11.90	2.83			63.27
WEIGEL, JOE	OPERATOR	1.80	INC APR '63	476.10	73.60	17.26			385.24
				14,951.90	2,037.10	522.04	186.45	93.75	12,112.56