STATE WATER CONSERVATION COMMISSION MINUTES OF MEETING Held in Office of State Water Commission Bismarck, North Dakota June 30, 1960

A meeting of the State Water Conservation Commission was held on June 30, 1960 in the office of the State Water Commission. The following members were present:

MEMBERS OF THE STATE WATER COMMISSION:

EarleF. Tucker, Vice Chairman, Bismarck
Einar Dahl, Commission Member from Watford City
A. R. Weinhandl, Commission Member from Minot
Oscar Lunseth, Commission Member from Grand Forks
William Corwin, Commission Member from Fargo
Math Dahl, Commissioner, Agriculture & Labor, Bismarck
Milo W. Holsveen, Secretary and Chief Engineer, State Engineer, Bismarck

OTHERS PRESENT:

William Pearce, Attorney for Pan American Petroleum Corporation, Bismarck Dr. Wilson Laird, State Geologist, Grand Forks
Colonel Walter Hogrefe, District Engineer, Corps of Engineers, Riverdale Cecil L. Moyes, Hydraulic Engineer, Corps of Engineers, Riverdale Joe Blye, Lignite
Ed Blye, Lignite
Art Martin, Lignite
Art Bloom, Commissioner, Lignite
Edward Wieland, Secretary-Treasurer, Farmers Union, Jamestown

The meeting was called to order by vice chairman Earle F. Tucker at 9:30 a.m. on June 30, 1960, with Commissioners Einar Dahl, A. R. Weinhandl, Oscar Lunseth and Secretary Holsveen present.

APPROVAL OF MINUTES

It was moved by Commissioner Einer Dahl and seconded by Commissioner Lunseth that the minutes of May 19, 1960 be approved and filed in the office of the State Water Conservation Commission. All Commission members voted are and the motion was carried.

FINANCIAL STATEMENT Commissioner Weinhandl made a motion that the financial statement for May 1960 be approved. The motion was seconded by Commissioner Einar Dahl. All Commission

members voted aye and the motion was carried.

SOUTHEAST CASS WATER CONSERVATION & FLOOD CONTROL DISTRICT ESTABLISHED

Secretary Hoisveen stated that he and Commissioner Corwin were present and conducted the initial meeting relative to the establishment of a water conservation and flood control district in the Southwest Fargo area in January 1960. Two meetings were held -

one at Horace and the other at Southwest Fargo. Sentiments at Southwest Fargo

were such that no district was established; however, district proponents since that hearing did eliminate the land of some of the objectors and are again anxious to form this district. The procedure of eliminating some of the acres evidently met with the approval of the objectors as they did not appear at the meeting held on June 14. Mr. Phil Nelson, Drainage Engineer, conducted the hearing. Mr. Corwin expressed surprise that there were no objectors at the second hearing. It was moved by Commissioner Corwin and seconded by Commissioner Lunseth that the Commission approve the establishment of Southeast Cass Water Conservation and Flood Control District. All Commissioners voted age and motion was carried.

BOUNDARY CREEK WATER CONSERVATION & FLOOD CONTROL DISTRICT **ESTABLISHED**

A hearing was held establishing a district in Bottineau County. The vote for establishing the district was quite close. The water is being drained from Canada. Quite a few people are being adversely affected. The construction of this project will be done by the Soil

Conservation Service, pretty much on the basis of the Tongue River project. Mr. Hoisveen recommended the establishment of the Boundary Creek Water Conservation and Flood Control District. It was moved by Commissioner Lunseth and seconded by Commissioner Einar Dahl that the Commission approve the establishment of Boundary Creek Water Conservation and Flood Control District. All Commission members voted age and the motion was carried.

STONE CREEK WATER CONSERVATION & FLOOD CONTROL DISTRICT -NOT ESTABLISHED

Secretary Holsveen stated that in view of the hearing held it would appear that there is strenuous objection to the establishment of a water conservation and flood control district in that area. It was Secretary Holsveen's recommendation that the Commission do not

approve the establishment of Stone Creek Water Conservation and Flood Control District.

PAN AMERICAN PETROLEUM

Secretary Hoisveen stated that Mr. Pearce, Attorney CORPORATION WATER RIGHT for the Pan American Petroleum Corpora tion was appearing on behalf of that corporation. A water right application was received from the Pan American

Company relative to the establishment of a unitization system in the Rival Oil Field in Burke County. The request by the Pan American Company is that a water right be approved whereby they could pump 673 gallons per minute or 1085 acre feet into the oil bearing strata of Rival Oil Field whereby they could obtain the greatest quantity of oil possible out of that field. A hearing was held on June 17, 1960 relative to this water right application. At that hearing some very informative discussion took place, plus the fact that a movie was shown, showing just how the Pan American Petroleum Corporation anticipated using the water. The Pan A merican people made certain proposals, which Mr. Pearce will explain; however, the water right application of the Pan American Company should be subject to certain restrictions. (Restrictions set out in motion of Commissioner Weinhandl.)

Mr. Pearce stated that he represented the Pan American Petroleum Corporation. He implied that Pan American would operate the system for the various companies and individuals who are producing oil in this field. Mr. Pearce, through the use of a map, described the proposed operation to the Commission members. He suggested that the proposed unit area would probably be the same as the present field as outlined. The solid dots, as you will recognize, are the oil wells in the field. At the present time the field is operated under individual leases. There are 46 leases in this field, either royalty owners or under this agreement. The wells can be dfilled and operated according to the engineer. Obviously, if you drill a water well and start to inject water where the blue dots are and take water from any existing wells, the operations will stop. All around the north and east edge of this field is the anhydrite barrier. The oil field is now being produced because of the gas pressure. Gas is free and gas is the solution. The pressure is falling, falling somewhat alarmingly. When the pressure falls that means the oil well is qetting old. When it falls to a certain point the well is no longer a producing well. The oil is there and will be there forever, unless something is done to replace the natural pressure. When there is no gas, water is injected. In this field the only thing to do is to inject water. The field is at the point where Dr. Laird agrees something must be done. Dr. Laird is charged with the duty of advising the Industrial Commission as to the operation of the wells. We think this is a good use of water. The plan of operation is to drill three wells. The first proposed site will be the north one. We expect to produce 6000 barrels. The second site would be the one adjacent to the village of Lignite. The village of Lignite has a well which was originally dug by the Great Northern railroad. The railroad has abandoned the well and it is used by the village of Lignite. This well was tested in 1949. It produced 6000 barrels in a 24 hour period. As far as we know the well is ample for Lignite. The third site is here, again referring to the diagram. These red dots and lines are supply lines from the wells to the proposed pump sites. This water has to be filtered and then pumped under considerable pressure to the injection wells, which might be abandoned wells, dry holes or wells producing so little it would be better to use them as injection wells than oil wells. The promise the Pan American made to the Commission was that we would drill these wells and seek the first available source of water for our needs which would not interfere with the domestic or municipal needs. If we find a well here which will produce 6000 barrels per day, if we find that much water and it does not interfere with the municipal needs, we will use that. If, in the judgment of the Commission, we are interfering with the other users in the vicinity we will have to go some place else. If there are no observation wells in the vicinity, we will put in the recommended observation wells. The logs which were exhibits are happenstance logs, usually do not log so close to the surface. This log is a radioactivity log, a gamma ray log. The third exhibit was a temperature log taken because we had difficulty locating the gas. These are the only logs we have close to the surface in the entire field. If the Commission finds we are interfering with that water we will close this strata and go on to where we are not interfering. This is not a perpetual use. The oil field has a limited life. If it lasts 15 years, at the end of that time we will have developed all we can and the wells will be available for whatever use the people want to make of them. This cannot go on indefinitely. If we have not interfered with the users we will have put the water to good use. We must find a self-reptenishing source. We cannot find a static source. Unless we can find a readily replenishing source of water supply as close to the surface as possible, it is going to be impossible to drill the oil wells. Before anything is done a unit must be formed and a contract drawn. When the contract is drawn up it will provide for a participation formula and provide what your percent will be, based on the performance of your well. It is a voluntary contract and if one has signed up and agreed

then when the oil is flowing you get your percentage. There are a number of units in the state right now - Beaver Lodge Unit and Tioga Unit. There is no other way of getting oil without pressure.

Dr. Laird stated that in connection with the oil drilling, the problem is the water source. It isn't a problem of injection. They know from experience that this type of injection will work. The problem of a water source is a more serious one and one that Pan American recognizes. In that area, it is the opinion of Dr. Laird that the water from these glacial drifts down to and including the Fox Hills, is water that is not being replaced rapidly enough to stand extensive withdrawals. A study has been made of the Crosby-Souris area. The report is quite lengthy. (Water table maps were shown and Dr. Laird explained the various elevations and depths and the possibilities of finding water.) The problem is whether or not these upper two connect with the shallow surface not logged. There are no test wells in this area. Dr. Laird feels that it is seepage water that is not being replaced as rapidly as it is being used. He is concerned because the people in this area have no other water supply. Dr. Laird stated that if the Commission does grant a water right to the Pan American Company he would recommend that test wells be required and that the pumping test be done under the supervision of his office to get the information whether the water is being withdrawan or replenished and in this way their office would be aware of the situation.

Mr. Pearce stated that he did not think there was any dispute with **D**r. Laird's remarks. That undoubtedly they would have to go deep for the water.

Mr. Blye asked why gas wasn't used. Mr. Pearce said that there was not enough gas, very little natural gas and to build a plant to get the gas would be too expensive.

Dr. Laird stated that gas was not as efficient as water. It was tried in the Westhope area and it did not work.

Secretary Hoisveen inquired as to whether there was any chance of the recharge being affected at the present time by the Coteau Hills. It was found that they were getting a good flow of water and that some of it was probably coming from the Coteau area.

Mr. Bye stated that the City of Lignite had a good water supply and they did not want to jeopardize this supply.

Mr. Tucker stated that if the Commission learned that the water at Lignite was being jeopardized, the well would be closed down. He felt sure that when a company the size of the Pan American made a promise they would keep it.

Mr. Pearce agreed with the statement of Mr. Tucker, that the users of the water in the Rival area would in no way be jeopardized. That if the Pan American found they were interfering with the water supply of

these users they would stop their drilling and look somewhere else for water.

Secretary Hoisveen stated that after the wells are abandoned the landowners can take over. A water right is a property right. The normal procedure in water right filings is that the people who feel they will be adversely affected are required to show they are so affected. In this case, we are insisting upon the applicant showing whether or not the landowners are adversely affected. (Referring to the City of Lignite.) Mr. Hoisveen stated that he believed the Commission was giving the City of Lignite better assurances than is normally done. An objector usually objects on the basis that the drilling of an irrigation well might hurt him. He is required to show that the injection adversely affects him as a landowner.

Mr. Pearce stated that an agreement was being circulated and nothing would be done until the agreement was signed by both the operator and the landowners.

Mr. Bye stated that they were not against water injection but wanted a satisfactory agreement that their supply of water would not be interfered with.

Dr. Laird stated that this was going to be fully controlled. If it is found that the drilling is going to interfere, the operations will be stopped. Dr. Laird suggested that at least three observation wells be drilled for each of the wells, that they be set at certain intervals which will be determined, after the well is drilled, by Dr. Laird and Secretary Hoisveen.

It was moved by Commissioner Weinhandl and seconded by Commissioner Corwin that the State Water Commission approve the application of the Pan American Petroleum Corporation for a water right, subject to the restrictions herein set forth. All Commission members voted are and the motion was carried.

RESTRICTIONS TO BE APPLIED TO THE DEVELOPMENT OF A WATER SUPPLY SYSTEM TO BE USED IN CONNECTION WITH THE RIVAL OIL FIELD, BURKE COUNTY

- That the Pan American Petroleum Corporation shall install a test well within a radius of 200 feet of the proposed site of each supply well to be used in connection with the unitization of the oil field known as the Rival Field in Burke County, North Dakota.
- That each such test well shall be tested with pumps of capacity of at least equal to the pumping capacity proposed for the supply well.
- 3. That not less than three observation wells shall be installed by the Pan American Petroleum Corporation near each test well at the site of each proposed supply well. The number, location and depth of such observation wells to be determined by the State Engineer.
- 4. That should the StateEngineer determine from the operation of any test well and the information obtained from the related observation

wells that the water supply of the overlying landowners is or may become adversely affected, the Pan American Petroleum Corporation shall be required to extend such test well or drill a new well and repeat the testing and observations from an entirely new source until a satisfactory new water supply, as determined by the State Engineer, shall have been discovered.

- 5. That the Pan American Petroleum Corporation shall not obtain nor use a supply of water from any acquifer or source of ground water supply which indicates a depletion of water from a source or sources used or which in the opinion of the State Engineer can or may be used for domestic and irrigation purposes. Upon written notice and order of the State Engineer given by regular mail or personal service, the Pan American Petroleum Corporation shall forthwith cease and desist from further pumping and withdrawal of such water.
- 6. That all expenses involved in the testing and observation operation other than those representing the state, shall be borne by the Pan American Petroleum Corporation.
- 7. That neither the State, nor any department, agency, or official thereof shall be responsible for any damage or injury resulting from or attributable to any activity of the Pan American Petroleum Corporation conducted pursuant to the provisions hereof.

WALHALLA CUT OFF PROJECT Secretary Holsveen stated that the Commission had a previous commitment of \$11,000 for making a cut off in the Pembina River in the Walhalla vicinity. At

the time there was no evidence that the stream was going to cut into a highway a 100 feet distant. It was eroding badly. It now appears that the city's water supply is being adversely affected, so the city is now interested and the county has become interested. They have also requested that a cut off wall be made in the channel to provide for holding the water and that would take care of the municipal water supply. The cost of that project would increase the total investment from \$11,000 to approximately \$30,000. Mr. Hoisveen felt that the city would not care to participate when they know how much it is going to cost. The city has asked the Commission for an estimate and possible participation. It was moved by Commissioner Lunseth and seconded by Commissioner Corwin that a cost estimate of the proposed cut off channel be furnished the City of Walhalla. All Commissioners voted aye and the motion was carried.

RESOLUTION - COST PARTICIPATION -PETERSON DAM A resolution was received by the Water Commission from the Nelson County Board of Commissioners requesting the Commission to repair, replace and add to the Peterson Dam and that Nelson County would

pay one-half the cost. The resolution is attached hereto and marked Appendix A. Secretary Hoisveen stated that this was one of the WPA projects. The Commission's share would approximate \$3,150. It was moved by Commissioner Einar Dahl and seconded by Commissioner Lunseth that the Commission participate in the repair of Peterson Dam not to exceed \$3,150. All Commission members voted aye and the motion was carried.

CORPS OF ENGINEERS REPORT ON MISSOURI RIVER

Colonel Hogrefe and Cecil Moyes of the Corps of Engineer's Riverdale area office appeared before the Commission. Secretary Hoisveen stated that

a meeting was held sometime ago as to stabilizing the banks between the Garrison and Oahe Reservoir. Five hundred acres is eroding from the banks because of the clear water being released from the Garrison Reservoir. A request was made to the group in Omaha that the releases on the Missouri River be held to a minimum in hopes that the erosion could be curtailed. Releases have been held to a minimum compared to last summer. There have been some complaints from the users, such as irrigators and pleasure boatsmen. Secretary Hoisveen stated that Colonel Hogrefe and he had discussed the situation. Colonel Hogrefe agreed to make a survey to determine the affect on the power plants, boating units, municipal water supply, such as Washburn. Colonel Hogrefe graciously agreed to explain the situation to the Commission.

Mr. Tucker stated that the pres ident of the Chamber of Commerce had talked to him. He states that the water when it comes down now carries a lot more silt, also it is taking the sides of the banks away. Mr. Tucker stated he would like an explanation so he could tell these people what the situation is. If the water is being let out too much at one time or too little at another time and it picks up more silt, that is something that should be known.

Colonel Hogrefe stated that the reservoir releases are approximately at a minimum now. They are 8000 cubic feet per second. Probably on July 1 the releases will be increased slightly. Because of the minimum and because complaints were received, some through the Governor's office, we tried to determine what effect it is having. I brought Mr. Moyes along. He is the one who made a survey on both sides of the river. He talked to as many people as possible. He questioned various types. He questioned four mariners, one irrigation district and various other types. He will give you this more in detail. This was to determine just how much these people are affected, what the facts are and how serious it is and what consideration is to be given when we have to go back down again. As you gentlemen know, the dam is multi-purpose and power is one of its features. The more water we hold the better the efficiency and the better we are able to satisfy the user, especially if next year is a severe dry year. The desirable feature is to store the water. We have, of course, in all reservoirs gained water this year, so much downstream that it has actually become necessary to evacuate the reservoir. The bank stabilization problem was presented to us and there is no authorization for that expenditure, although it was the general concensus that the people here consider it as such. The study of it and where It can best be done is stillgoing on. We have people on the river now making surveys. We have found that with the lower flow there has been much less erosion.

Mr. Moyes stated that in the surveys he took the east side and the industries on the west side. These are all comments that the people made. The people we saw were: 3 municipalities, Wasbburn, Bismarck and Mandan; 3 industrial plants, Montana Dakota Utilities, Standard Oil, Otter Tail Power; 4 boat clubs, 31 landowners, 17 irrigators and 14 dry farmers. Incases where we knew complaints had been made we went and called on them. If they were home we talked to them. If they were not, we did not try to go back but we saw practically all who had made any statements at all. We talked to people in one irrigation district, the municipal water p lants could be supplied with slightly lower flow than put out this summer. Power and industrial plants operate under just the minimum. Two boat clubs in Bismarck and Mandan are out of operation and will not go back until there is 3 feet more water. Two other clubs are operating on a restricted basis - operating at about one-fourth capacity and that is reflected in the number of boats on the river. It is down considerably from last year. Of the 17 irrigators, at the time we made the survey, none had started using water because of the rainfall we had this spring; so their

estimate is based on what they were going to require when they started irrigating as compared to last year. Seven expected trouble. The other half expected no trouble. In no case were there sand bars. Those who had to go 15 or 20 feet for water were classed as having very little trouble. So they were classed as having no trouble. On July 1 the flow would be increased slightly. Half of those who have trouble will be relieved. This is just an estimate on my part. It would leave about 4 adversely affected. Of the dry land farmers, of the fourteen, we had no complaint on the low flow andno complaint on erosion from any farmer on low flow. That doesn't include fluctuation. All of the 31 farmers were asked about fluctuation and in those cases half of them were having trouble with erosion and the other half were not. There were three who were badly affected. With the fluctuation from 20,000 for one week down to 8000 the next week, a pretty high flow to a flow flow, they thought that contributed to the bank erosion and caused more erosion than if there was a steady flow.

Colonel Hogrefe stated that a power plant is operated on the basis of power demands. When they say they have 8000, that can vary from a low of 3 or 4000 to a high of 20,000. During the summer some of the turbines are shut down for repairs, etc. That may be a variation which will not affect people very far down the river. From Washburn down they will not notice this, so the fluctuation Mr. Moyes talks about is based on how the dam is operated.

Mr. Moyes stated that he did not ask everyone the question on daily flucutation. He asked half of them and they didn't know there were daily fluctuations. In the irrigation district, the Fort Clark district, they thought they would be all right.

Mr. Weinhandl inquired as to whether they had asked these people how many acres were being eroded. Mr. Moyes said they had not.

Colonel Hogrefe stated that the silt carrying possibility and the erosion were considered in the original plans when the Garrison Dam was in the making. The actual problem has not been pinpointed. In some cases you can see where the banks are being eroded.

WITHAM WATER RIGHT #859 (J.C.Eaton Objector) Mr. Eaton appeared before the State Water Commission relative to the water right application of Lyle Witham which requests a right to remove water from ground water sources in the $NE\frac{1}{4}NW\frac{1}{4}$, $NW\frac{1}{4}NW\frac{1}{4}$, $SW\frac{1}{4}NW\frac{1}{4}$,

SE¼NW¼, NE¼SW¼, NW¼SW¼ of Section 30-156-76, NE¼NE¼, NW¼NE¼, SE¼NE¼, SW¼NE¼ Section 26-156-77 which land is adjacent to the Souris River. He indicates a desire to pump approximately 630 acre feet annually. At the water right hearing held on June 13, 1960 Mr. Eaton objected to granting the right on the basis that his land might be adversely affected. Mr. Hoisveen informed the Commission that the hearing had been recessed pending the initial pumping operations of Mr. Witham. He stated that the Commission usually took the attitude that the burden of proof should be with the objector. However, in this case good information would be made available through Mr. Witham's operations.

Mr. Eaton stated that the hearing was advertised and that he made an appearance to obtain information regarding the application. Mr. Witham was also present. He has 4 locations for pumps. Mr. Eaton thought Mr. Witham should state how much water he wants to take from each pump. He also stated

that Mr. Witham did not have any information and did not present any when he was here except that he wanted 630 acre feet for farm irrigation. It was agreed that the meeting would be recessed to give Mr. Witham an opportunity to cite his facts and bring his material to the hearing. He has now drilled one well and in all probability will drill the rest. The Commission should not permit the operation of these wells when an objection has been made until some action has been taken on the matter. I know what Mr. Acker says. Mr. Eaton felt the only remedy' now is to wait until Mr. Witham pumps water and then sue him for damages.

Mr. Hoisveen stated that Mr. Witham's water right is pending. There is no way of determining whether Mr. Eaton would be adversely' affected unless some pumping is done. He contends that unless the Commission would go in with equipment and exhaustive testing there would be no way of telling the quantity of water that is available in the aquifer in this area. We would never develop irrigation on ground water basis in this state if wells were not pumped by the state or the individual landowner.

Mr. Eaton stated that Mr. Witham has one test well that is very good. Mr. Witham did not say where it was. If that one is right up against Mr. Eaton's well that would mine the ground water from his land and reduce his alfalfa yield.

Mr. Weinhandl stated that unless a test is made we will never know whether the water level is going down or not.

Mr. Eaton stated he thought the hearing should be continued. He did not think Mr. Witham should be allowed to do anything without making a disclosure. He didn't tell at the meeting whether the well with the abundant flow is here or where it is (pointing to map). He may take 630 acre feet right out from under me. He is just drilling one here. I assume he will have a pipe line down for those wells.

Mr. Hoisveen stated that he thought Mr. Witham was going to do sprinkler irrigating. It is an expensive method as far as irrigation is concerned. Mr. Hoisveen also stated that Mr. Witham had left a log of the holes. One of which is very good. Mr. Hoisveen stated that apparently this is the one indicated as good, in the N_2^1 NW $_4^1$ of Section 30. The drill hole is constituted of sand and gravel. There is no indication as to where the wells are but it is assumed they are in the NW $_4^1$ of 30. Mr. Hoisveen stated that the Commission could stipulate in the water right application that if the pumping in the Eaton area would adversely affect Mr. Eaton that the pumping should be discontinued.

Mr. Eaton wanted to know if this one (pointing to map) couldn't be taken out. Referral was made to the proposed well closest to Mr. Eaton's place. Mr. Eaton stated that it would be all right with him if Mr. Witham was not permitted to drill the one well that is the closest to his place.

Mr. Hoisveen stated that this procedure would be suggested to the applicant and that the development of this well would be deferred until the effect of the other wells on adjacent land was established.

Mr. Eaton stated that no one should be permitted to dig wells until the permit has been issued.

IMPROVING FLOOD CONTROL CONDITIONS IN THE SOURIS RIVER BASIN (MInot) Mr. Weinhandl stated that in the Lake Darling area there was danger of the dam going out several years ago. Survey was made. If the dam went out the damage could run into a million dollars. A meeting

was held in the office of Senator Young in Washington, D. C. The Federal Fish and Wildlife Service was present, as was the Corps of Engineers. It could be ten years before the investigation is completed. The executive secretary of the appropriation committee was present and he did not think we could increase the amount of the survey. The State Water Commission suggested that they could contribute \$10,000 to hurry the survey along. The Corps of Engineers did not think they could do that. They could borrow the Water Commission's engineers and equipment to the extent of \$10,000. He thought this would be agreeable. They would try to increase the appropriation. A survey was requested six years ago by the City of Minot, as the city was alerted and the Red Cross had everything ready in case of a flood. There are 300 new homes located in that area at the present. The Fish & Wildlife contend that it is not a flood protective dam and it was not built for that purpose and could not see why they should protect the city of Minot However, the hazard has been created by the Wildlife and it is through its use. up to them to do something about the situation. In one of the preliminary reports of the Corps of Engineers it was stated that a flood of such dimensions could cause a major catastrophe if the dam were to fail. Secretary Holsveen stated he called the Corps of Engineers in St. Paul about the \$10,000. The Corps indicated that if they get \$35,000 they will not require aid from the State Water Conservation Commission.

The meeting recessed until 1 p.m. and reconvened

again at 1 p.m.

MISSOURI RIVER INTER-AGENCY MEETING AND MISSOURI RIVER STATES MEETING AT YELLOWSTONE Mr.Tucker stated that the Secretary(Mr. Hoisveen) Introduced a resolution relative to bank stabilization at the meeting of the Missouri River States Committee at Yellowstone. The resolution was passed at this meeting and is Appendix B.

INTERNATIONAL JOINT COMMISSION MEETING

Secretary Hoisveen stated that Mr. Fred Fredrickson and he had been working on the meeting of the International Joint Commission to be held in North Dakota in connection

with the Pembilier Dam. They expect to be in Grand Forks on the evening of August 23rd. They will tour the Pembina River Valley on August 24th. Visits will be made at Pembina, Neche, Walhalia and the proposed dam sites. A meeting of the International Joint Commission will be held in Winnipeg on August 25th.

BUBBLE#GAGE INSTALLATION GRAND FORKS Secretary Holsveen stated that a "bubbler gage" operates on the basis of a small butsteady release of nitrogen gas through a plastic tube extending from the recording gage site to a fixed point on the river. The back pressure on

the gas in the tube is a function of the depth of the river water over the end of the tube in the river. The recording instrument converts the amount of back pressure into river height in feet, shows the stage at all times on a dial or counter and records it continuously on a chart. The city of Grand Forks feels that such an instrument would be helpful in the conduct of the activities of the sewage department. The cost is \$1.80 the city's share would be \$900 and would have to be matched by another entity. Commissioner Lynseth said he would talk to the city about it.

1961-1963 BUDGET PROPOSAL

The proposed budget for the 1961-1963 biennium was presented to the Commissioners. Secretary Hoisveen explained the various items and the increase or decrease under each heading. The small Irrigation investigation item authorized at Grand Forks was also included in the proposed budget. It was moved by Commissioner Einar Dahl and seconded by Commissioner Corwin that the Commission approve the proposed budget as presented. All Commission members voted age and the motion was carried.

PARTICIPATION IN LAKE Mr. Edward Wieland, secretary-treasurer of the Farmers TOBIASON DAM Union at Jamestown appeared before the Commission. Secretary Hoisveen stated that he had heard about the difficulties in Tobiason Dam in the Finley area. An investigation was made during the spring of the spillway condition. The water was still flowing at a rapid rate at that time. A later investigation was made at which time the Commission engineers could better determine the cost of repairing, actually rebuilding the structure that is in Tobiason Lake. Secretary Hoisveen stated that the cost estimate approximated \$11,700. The Commission previously authorized participation to the extent of 50% of the cost which was \$8000 at that time.

Mr. Wieland stated that their concern was to have the repairs made. The \$4000 represented a considerable investment as far as the Farmers Union is concerned. The Farmers Union owns the land surrounding the lake. The Farmers Union has a camp there. Mr. Wieland stated that an investigation was made and it was found there had been a considerable amount of erosion on the dam itself. There is now no spillway to speak of. One thing that had not been discovered before is that there was so much water running in and off the culverts to Lake Tobiason. The culverts were found to have three sections and where the three sections come together there is evidence of depression, leaving large openings in the top. Something would have to be done to block this. The Farmers Union uses the same camp during the month of June. The camp is very modern and has very fine facilities. Quite a few of the nonprofit organizations throughout the state make use of the facilities of the camp which the Farmers Union makes available to them, at a charge of one dollar per day per person which takes care of the expenses only. Mr. Wieland thought that in view of the size of this project, this dam not only serves to maintain a certain water level in the lake it also serves as a means of controlling the heavy runoff during peak runoff seasons and is one of the reasons the project is more expensive than it would be and in view of the fact that it is used as much by all others in and around that community as well as the Farmers Union, they could secure help in repairing the dam. The facilities are free to the public. The county has not been asked to help in this project. There is a bridge that comes across on the property of the Farmers Union. This bridge is at right angles to the inlet side of the dam. There is considerable evidence of surface erosion on the concrete picnic tables at a cost of \$1,500, flare outs. The Farmers Union has built bought equipment etc. which is of no use to the Farmers Union. They permit the grounds to be used without charge.

Commissioner Lunseth felt that the county should be interested in this project and become the sponsor. The position of the Commission would be much better If the county was asked to participate.

Commissioner Corwin suggested that the Farmers Union stay out of this entirely and that the county ask for participation on a 50% basis.

Commissioner Corwin moved that if the County Commissioners of Steele County ask the Commission to participate in the Lake Toblason project that the Commission will do so on a 50% basis. The motion was seconded by Einar Dahl. All Commission members voted age and the motion was carried.

REQUEST FOR COST PARTICIPATION IN DRAINS

CASS COUNTY DRAIN #16

The Commission participated in Cass County Drain #16 in 1960. The cost of the Commission participation was \$2,180.66. A letter was received from Mr. Ohnstad requesting participation on the part of the State Water Conservation Commission in

the sum of \$1,370.36. This consists of a cleanout of a mile and a half of the drain. This work was completed in 1959. No preliminary survey of need and nature of improvement was made since the Commission was not notified of the proposal to improve the drain. It was moved by Commissioner Math Dahl and seconded by Commissioner Lunseth that the State Water Commission deny the cleanout job on Drain #16. All Commission members voted age and the motion was carried.

CASS COUNTY DRAIN #13

Cass County Drain #13 is south of Argusville. This is a cleanout of the upstream portion of the drain. Secretary Hoisveen stated that they were calling these cleanouts when actually they were rehabilitations. The Commission's share is \$4,294.00. On some of these drains they have a mill levy of 50¢ an acre. This is on an annual basis. They will do a segment of the Job and then do a segment the following year. According to our present regulations, if we work on a drain once we should not be asked to participate again; however, in situations such as this, we should go along if they are doing the work in a systematic way over a period of years, as the 50¢ levy only permits them to work on a segment at a time. It was moved by Commissioner Math Dahl and seconded by Commissioner Corwin that the Commission participate in the repair of Drain #13 at a cost to the Commission of \$4,294. All Commission members voted age and the motion was carried.

CASS COUNTY DRAIN #29

Cass County Drain #29 is from Argusville east to the Red River intersection of Drain #13. A letter

was received from Mr. Ohnstad requesting assistance by the State Water Commission in the reconstruction of this drain. The Commission's share would be \$2,000. It was moved by Commissioner Math Dahl and seconded by Commissioner Corwin that the Commission participate in the reconstruction of Cass County Drain #29. All Commission members voted ayeand the motion was carred.

WATER RIGHTS

#852

Ardell Liudahi of Williston requests the right to divert 75 acre feet from Little Muddy Creek and runoff to irrigate 50 acres. Mr. Liudahl entered

into an agreement with Mr. Shae, which agreement is on file in the office of the State Water Commission and made a part of this record. It was moved by Commissioner Lunseth and seconded by Commissioner Einar Dahl that Ardell Liudahl be granted the right to divert 50 acre feet of water from the Little Muddy Creek and runoff water to irrigate 50 acres, subject to the agreement with Mr. Shae on file herein. All Commissioners voted age and the motion was carried.

Leo Anderson of Fargo requests the right to #865 divert 360 acre feet of water from the Red River of the North to irrigate 180 acres. It was moved by Commissioner Lunseth and seconded by Commissioner Math Dahl that Leo Anderson be granted the right to divert 180 acre feet of water from the Red River to irrigate 180 acres subject to

the rights of the City of Grand Forks. All Commissioners voted age and the motion was carried.

#857

The City of Kenmare requests a water right to divert 1460 acre feet of water from underground sources and Des Lacs River for municipal purposes. Secretary Hoisveen pointed out that although the Federal Fish and Wildlife objected to the granting of this right, our program was such that we have to consider all interests and especially the human requirements. It was moved by Commissioner Lunseth and seconded by Commissoiner Math Dahl that the City of Kenmare be granted the right to divert 1460 acre feet of water from underground sources and the Des Lacs River for municipal purposes. All Commissioners voted aye and the motion was carried.

#858

The Village of Fortuna requests a water right to divert 25 acre feet of water from a well for municipal purposes. It was moved by Commissioner Corwin and seconded by Commissioner Math Dahl that the Village of Fortuna be granted the right to divert 25 acre feet of water from a well for municipal purposes, with the reservation that it must not adversely affect riparian owners. All Commissioners voted age and the motion was carried.

#862

Casper B. Nervig of Williston requests the right to divert 48 acre feet of water from Little Muddy Creek to irrigate 24 acres of land. It was moved by Commissioner Corwin and seconded by Commissioner Lunseth that Casper B. Nervig be granted the right to divert 24 acre feet of water from the Little Muddy Creek to irrigate 24 acres. All Commissioners voted aye and the motion was carried.

#863

W. C. Chaseley of Marmarth requests the right to divert 122.2 acre feet of water from the Little Missouri River to irrigate 61.1 acres of land. It was moved by Commissioner Lunseth and seconded by Commissioner Corwin that W. C. Cha seley be granted the right to divert 22.5 acre feet of water from the Little Missouri River to irrigate 15 acres. All Commissioners voted aye and the motion was carried.

The meeting adjourned at 2:30 p.m.

Respectfully submitted,

ATTEST:

Milo W. Hoisveen

APPENDIX A

RESOLUTION

WHEREAS, the Peterson Dam, located near Pekin, Nelson County, North Dakota, requires certain repairs, replacements, and additions thereunto in order to restore and preserve same, and

WHEREAS, The North Dakota State Water Commission has surveyed said Peterson Dam and prepared plans and probable costs to effectuate such repairs, replacements, and additions, and

WHEREAS, said Peterson Dam benefits the citizens of the County of Nelson, State of North Dakota by providing a park and recreational area.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS, NELSON COUNTY, NORTH DAKOTA, that said Nelson County contribute and pay one-half $(\frac{1}{2})$ of the costs to so repair, replace, and add unto the said Peterson Dam, the same to be in accordance with the plans prepared by the North Dakota State Water Commission, but in no event shall such contribution and payment exceed the sum of \$3.150.00.

Dated at Lakota, North Dakota this 9th day of June, 1960.

Nelson County Board of

ATTEST:

By <u>s/Odien Flaagan</u>

s/I. Quam

Odien Flaagan, Chairman

I. Quam,
County Auditor

MISSOURI RIVER BANK EROSION RESOLUTION

WHEREAS, the Missouri River States Committee has received resolutions and requests to support the State of North Dakota in its efforts to curtail the bank erosion occurring in the reach of the Missouri River between the Oahe and Garrison Reservoirs in North Dakota; and

WHEREAS, by the construction of the Garrison Dam, which is an integral part of the Missouri Basin Project, a water supply has been created for municipal and industrial uses, sewage dilution, irrigation, navigation and power generation in the basin; and

WHEREAS, the erosion in this reach of the river results from the discharge of the clear water from the Garrison Reservoir; and

WHEREAS, studies indicate that approximately 500 acres of valuable bottom land is being eroded away each year and with increased water releases this loss may be accelerated to 1000 acres per year; and

WHEREAS, the protection of banks from erosion in this reach of the river is an unfinished segment of the installation of the Main Stem Reservoirs.

NOW, THEREFORE, BE IT RESOLVED by the Missouri River States Committee at a meeting held in Canyon Village, Yellowstone Park on June 24, 1960 that the Corps of Engineers be requested to expedite the survey work needed to determine the most feasible means of correcting this condition and thereafter this agency should invoke immediate steps to insure protection against future erosion from water released from the Garrison Reservoir.

BE IT FURTHER RESOLVED that the Chairman of the Missouri River States Committee mail a copy of this Resolution to each Governor member of the Missouri River States Committee; to each Senator and Representative in the Federal Congress of the affected states; to the Chief Engineer, U. S. Corps of Army Engineers, Washington, D.C.; Major General Keith Barney, Missouri River Division Office, Omaha, Nebraska; Colonel Walter W. Hogrefe, Area Engineer, Riverdale, North Dakota; and to the President of the United States.

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION MONTHLY REPORT OF APPROPRIATIONS AS OF JUNE 30, 1960 1959-1961 APPROPRIATIONS

	AVAILA	LE FUNDS	D1S	BURSEMENTS		ID BALANCES	
FUND	APPROPRIATION		TS TO DATE	JUN 60	UNEXPENDED	ENCUMO.	UNENCUMD.
1. COMM PER DIEM & EXP	6,000.00	.00	2,320.78	121.26	3,679.22	892.21	2,787.01
2. ADMINISTRATION	49,200.00	294.73	23,374.17	1,961.62	26,120.56	564.64	25,555.92
3. MAINTENANCE OF DAMS	115,000.00	67,094.55	157,864.55	12,922.14	24,230.00	8,314.79	15915.21
4. INT'L & INTERSTATE EXP	10,000.00	.00	2,890.54	281.58	7,109.36	576.42	6,532.94
5. TOPOGRAPHIC SURVEYS, USGS	30,000.00	.00	12,727.13	2,18333	17,272.87	17,272.37	.00
6. HYDROGRAPHIC SURVEYS, USGS	27,500.00	900.00	12,098.57	.0.0	16,301.43	4,800.80	11,500.63
7. ENGR & GEOL SURVEYS, USGS	57,500.00	.00	19,524.56	2,098.45	37,975.44	12,975.44	25,000.00
8. COOP WITH U. S. DEPT, ETC	57,000.00	.00	21,026.71	2098.12	35,973.29	3,371.16	32602.13
9. ENGR INVESTIGATIONS, ETC	138,000.00	.00	63,419.29	7,334.00	74,58 0.71	3,553.28	71,027.43
10. ADM OF WATER LAWS	6,000.00	.00	823.50	.00	5,176.50		5,176.5 0
11. OASIS CONTRIBUTIONS	6,500.00	.00	3,211.12	.00	3,288.88	1,307.16	1,931.72
20. MULTIPLE PURPOSE "CAR FWD"	176,751.98 200,000.00	4,981.28	100,625.15	1,659.49	233,108.11	196,269.46	G 6,838.6 5
21. CONST BOND GUAR "CAR FWD"	77,056.64 956,508.62	3,236.60 76,507.16	.00 419,906.17		30.293.24 615.109.61	.00 249,898.23	365,21 <u>1</u> 38

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION MONTHLY REPORT OF APPROPRIATIONS AS OF JUN 3 0 1960 1957-1959 APPROPRIATIONS

FUND	AVAIL APPROPRIATION	ABLE FUNDS		DISBU	RSEMENTS	FUND UNEXPENDED	BALANCES ENCUMB.	UNENCUMB.
I. COMM PER DIEM & EXP	6,000.00	.00	6,00	0.00#	.00	.00	.00	.00
2. ADMINISTRATION	47.000.00	2,79733	6 49,57	9.27	.00	218.06	.00	21 3.96
3. MAINTENANCE OF DAMS	105,000.00	101,910.53	20491	058	.00	.00	.00	.00
4. INTEL & INTERSTATE EXP	8,000.00	14.85	7,99	733	.00	17.52	.00	17.52
5. TOPOGRAPHIC SURVEYS, USGS	30,000.00	.00	30,00	0.00	.00	.00	.00	.00
6. HYDROGRAPHIC SURVEYS, USGS	27,500.00	.00	27,50	00.00	.00	.00	.00	.00
7. ENGR & GEOL SURVEYS, USGS	37,500.00	5,306.81	42,80	6.81	.00	.00	.00	.00
8. COOP WITH U. S. DEPT, ETC	50,000.00	10.00	50,00	4.93	.00	5.07	0.00	5.07
9. SMALL PROJECTS, ETC	118,000.00	2,374.98	120,3	74.98 0	.00	.00	.00.	.00
IO. ADM OF WATER LAWS	6,000.00	.00	6,00	00.00	.00	.00	.00	.00
II. OASIS CONTRIBUTIONS	3,800.00 438,900.00	4,541.24 116,955.79			00.	.00 240.65	.00	240.65

[#] INCL TRANSFER TO FUND #2 -\$523.62

© INCL TRANSFER TO FUND #2 -\$ 97.57

& INCL TRANSFER FROM FUND #1-\$523.62 & FUND #9-\$97.57

% TRANSFER FROM EMERGENCY COMM -\$4,541.24

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION PAYROLL - JUNE 30, 1960

PERMANENT EMPLOYEES

NAME	PAY POSITION GRAD		RE	MARKS	SALARY JUN' 60					
HOISVEEN, MILO W.		8-0		JUL' 60	904.67	132,00	8.30	1 4.6 0	18.75	731.02
ANDERSON, LARRY		B -7	INC	JUL 60	185.00	23.50	5.55			155.95
BAESLER, GORDON		F-6		JUL! 60	35 4 .6 7	4 4.1 0	10.64			299,93
BISCHOF, DON		C-9		JUN 60	118.84	1 6.4 0	3.5 7			98.87
COOPER, VERNON S.	ASST SECTY &	M-6	INC	JUL 60	373.84	71.00	11.22	1 4.6 0		277.02
FREDRICKSON, FRED	COORDINATOR G	G-4	INC	JUL 60	388.67	39.80	11.66			337.21
GEHRING, EDNA		C-7		JUL' 60	220.42	40.00	6.61	6.25		167.56
GRINDCERG, ALAN	ENGINEER I	1-6	INC	JUL 60	504.17	81.80	15.12	6.25		401.00
HEIDT, DARLENE		D-1		APR 60	225.00	30 .7 0	6.75	6.25		181.30
HILAND, LEONE		F-6 °	INC	JUL' 60	354.67	4 4.1 0	10.64	6.25		293.68
KREDSBACH, JOE		F-9		MAY 60	392.67	2130	11.78	1 4.6 0		344.99
MOSER, IRVIN		B -9	INC	JUL 60	196.67	25.60	5.90		CHI	165.17
NELSON, C. P.		1-6		DEC' 59	535.00	65.40	1 6.05			453 . 55
PEDERSON, GARY		A~9.		JUN 60	185.00	2 3.5 0	5.55			155.95
PUTZ, ROÝ	MAT ASST. A	A-10	INC	JUL 60	185.00	1 3.5 0	5.55	6.25		159.70
REITER, DANIEL	FOREMAN H	H - [INC	APR 60	416.67	33.80	12.50	1 4.6 0	18.75	337.02
SACKMAN, EUGENE		G-1		MAYT 60	366.67	15.60	11.00	1 4.6 0		325.47
SANDWICK, HAZEN		K-7		JUL 60	651.67	68.80	19.55	1 4.6 0	37.50	511.22
SCHOCK, LOREN		G -7		JUL! 60	185.00	23.50	5.55			155.95
SCHULZ, JIM		G-2	INC	JUL! 60	35 4.6 7	5 4.1 0	10.64	1 4.6 0		275.33
SCHWINKENDORF, DON		D-4		JUL 60	237.67	32.80	7.13			197.74
TIMM, ROBERT J.	ASST ST ENG H			JUL 60	68 5.6 7	7 6.0 0	20.57	1 4.6 0		574.50
WALTERSON, HOWARD		H-1		APR 60	416.67	53.80	1 2.5 0	1 4.6 0		335.77
WALTERSON, JEAN		D-5		JUL' 60	245.25	23.90	7.36			213.9 9
ZIEGLER, VICTOR	ENG INEER .	J-7	INC	JUL 1 60	594.17	8 6.2 0	17.83	14.60	25.00	450.54
					9.278.40	1,141.20	259.52	177.25	100.00	7.600.43
								~=====		

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION PAYROLL - JUNE 30, 1960

TEMPORARY EMPLOYEES

NAME	POSITION GR		SALARY JUN' 60	WITH XAT	SEC.	HOSP.	BOND	
BURKHARDSMEIER, A. BURKHARDSMEIER, R. GOLDADE, JOSEPH HEIL, RAYMOND HIGHLEY, ERNEST JOHNSON, GEORGE KAMONI, AHMED KNUTSON, LEWIS LAUINGER, ANTON LEE, JEROME MCMASTER, GEORGE NEWGARD, DENNIS PETERSON, JOHN VOELLER, PIUS	OPERATOR 2.1 LABORER 1.2 LABORER 1.2 LABORER 1.2 DRILLER ASST1.1 OPERATOR 1.3 DRILLER ASST2.0 OPERATOR 1.3	50 STA JUN' 60 15 TEM 5-6' 60 15 STA MAY' 60 15 STA APR' 60 10 STA JUN' 60 10 STA APR' 60 10 STA	152.25 175.23 307.51 501.36 451.25 544.95 624.24 443.64 378.31 806.94 416.63 420.89	79.10 22.80 24.30 25.50 79.00 69.90 63.80 100.60 68.60 53.90 121.30 63.50 63.80	15.15 4.57 5.25 9.22 15.04 13.53 16.35 18.73 13.31 11.34 24.21 12.49 12.63 7.68		12.18	410.75 124.88 133.50 261.81 407.32 367.82 464.80 504.91 361.73 313.07 660.93 340.64 344.46 248.35
			5,984.23	836.60	179.50	.00	23.16	4,944.97

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION MONTHLY REPORT OF APPROPRIATIONS AS OF JULY 31, 1960 1959 - 1961 APPROPRIATIONS

	-		CLE FUNDS	Dis	CURSEMENTS	Ful	ND DALANCES	
	FUND	APPROPRIATION	RECE	PTS TO DATE	JUL 160	UNEXPENDED	ENCUMP.	
١.	COMM PER DIEM & EXPENSES	6,000.00	.00.	2,361 35	540.57	3,138.65	417.00	2,721.65
2.	ADMINISTRATION	4,9,200.00	332.23	25,181.72	1,307.55	24,350.51	487.64	23,362.87
3.	MAINTENANCE OF DAMS	115,000.00	77,094.55	166,133.47	ε,268.92	25,961.08	4,063.44	21,897.64
4.	INT'L & INTERSTATE EXP	10,000.00	.00	3,467.06	576.42	6,532.94	.00	a532.94
5.	TOPOGRAPHIC SURVEYS, USGS	30,000.00	.00	12,727.13	. 0 O.	17,272.37	17,272.37	.00
6.	HYDROGRAPHIC SURVEYS, USGS	27,500.00	900.00	1 2,09 8.5 7	.00	1 6,301.43	4,800.80	11,500.63
7.	ENGR & GEOL SURVEYS, USGS	37,500.00	.00	20,981.20	1, 45 6.6 4	36,518.30	34,518.80	.00
8.	COOP WITH U. S. DEPT, ETC	57,000.00	.00	24,461.16	3,434.45	32,538.84	3,572.00	28,966.34
9.	ENGINEERING INVESTIGATIONS	135,000.00	.00	71,263.32	7,844.53	ი 6,736.1 8	2,336.07	64,400.11
10.	ADM OF WATER LAWS	6,000.00	.00	823.50	.00	5,176.50	.00	5,176.50
н.	OASIS CONTRIBUTIONS	6,500.00	.00	4,518.28	1,307.16	1,981.72	.00	1, 381.72
20.	MULTIPLE PURPOSE "CAR FWD"	179,751.98 200,000.00	4,981.28	119,975.11	19.349.96	263,758.15	245,213.91	1 2,54 4,24
21.	CONST DOND GUAR "CAR FWD"	77,056.64 955,508.52	3,274.10 66,582.16	.00 4८ և, կ 9237		30,330.74 530,598.41		30,330.74 265,915.88

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION MONTHLY REPORT OF APPROPRIATIONS AS OF JUL 3 1 1960

FUND	AVAI APPROPRIATIO	LABLE FUNDS N RECE		RSEMENTS	FUND UNEXPENDED	BALANCES ENCUMB.	UNENCUMB.
I. COMM PER DIEM & EXP	6,000.00	.00	6,000.00#	.00	.00	.00	.00
2. ADMINISTRATION	47,000.00	2,79733	8, 49,579.27	.00	218.06	.00	213.96
3. MAINTENANCE OF DAMS	105,000.00	101,910.53	204910.58	.00	.00	.00	.00
4. INTEL & INTERSTATE EXP	8,000.00	14.85	7.99733	.00	17.52	.00	17.52
5. TOPOGRAPHIC SURVEYS, USGS	30,000.00	.00	30,000.00	.00	.00	.00	.00
6. HYDROGRAPHIC SURVEYS, USGS	27,500.00	.00	27,500.00	.00	.00	.00	.00
7. ENGR & GEOL SURVEYS, USGS	37,500.00	5,306.81	42,806.81	.00	.00	.00	.00
8. COOP WITH U. S. DEPT, ETC	50,000.00	10.00	50,004.93	.00	5.07	.00	5.07
9. SMALL PROJECTS, ETC	118,000.00	2,374.98	120,374.98 @	.00	.00	.00	٥٥.
IO. ADM OF WATER LAWS	6,000.00	.00	6,000.00	.00	.00	.00	.00
II. OASIS CONTRIBUTIONS	3,800.00 438,300.00		% 8.341.24 555,515.14	.00.	.00 240.65	.00	.00 240.65

[#] INCL TRANSFER TO FUND #2 -\$523.62

O INCL TRANSFER TO FUND #2 -\$ 97.57

& INCL TRANSFER FROM FUND #1-\$523.62 & FUND #9-\$97.57

% TRANSFER FROM EMERGENCY COMM -\$4,541.24

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION PAYROLL - JULY 31, 1960

PERMANENT EMPLOYEES

NAME	POSITION	PAY GRADE	REMARKS	SALARY JUL'60			HOSE	P. EONDS	
HOISVEEN, MILO W.	ST ENGR	0-8	INC JUL 60	927.67	139.20		7.35	18.75	762.37
ANDERSON, LARRY	RODMAN	B-7	INC JULT 60	196.67	25.60	5.90			165.17
BAESLER, GORDON	DRAFTSMAN	F-6	INC JUL' 60	36 4.1 7	4 5.5 0	10.93			307.74
COOPER, VERNON S.	ASST SECTY		INC JUL' 60	383.84	71.00	11.52	1 4.6 0		286.72
FREDRICKSON, FRED	COORDINATOR		INC JUL 60	399.67	4130	11.99			34638
GEHRING, EDNA	FILE CLERK	C-7	INC JUL' 60	226.17	40.70	6.79	6.25		172.43
GRINDBERG, ALAN	ENGINEER	1-6	INC JUL 60	536.6 7	8 5.4 0	1 6.1 0	6.25		428.92
HILAND, LEONE	CH STENO	F-6	INC JUL' 60	36 4.1 7	4 5.5 0	10.93	6.25		301.4 9
KREBSBACH, JOE	INST MAN	F-9	RES AUG' 60	392.67	1130	11.78	1 4.6 0		35 4.9 9
MOSER, IRVIN	RODMAN	B-9	INC JUL 60	206.67	2 7.1 0	6.20			173.37
NELSON, C. P.	ENGINEER	K-2	INC JULT 60	535.00	65.40	1 6.05			453.55
PEDERSÓN, GARY	ENGR AID	A-9	STA JUNT 60	185.00	23.50	5.55			155.95
PUTZ, ROY	TECH ASST	A-10	INC JUL 60	189.50	1 4.2 0	5.6 9	6.25		163.36
REITER, DANIEL	FOREMAN	H-1	INC APR 60	416.67	33.30	1 2.5 0	1 4.6 0	18.75	337.02
SACKMAN, EUGENE	INST MAN	G-1	INC MAY 60	366.67	1 5.6 0	11.00	1 4.6 0		325.47
SANDWICK, HAZEN	ENGINEER	K-7	INC JUL 60	668.67	68.90	20.06	1 4.6 0	3 7.5 0	52 7.71
SCHOCK, LOREN	RODMAN	B-7	INC JUL 60	196.67	25.60	5.90			165.17
SCHULZ, JIM	ACCT	G-2	INC JUL 60	377.67	5 8.4 0	1133	14.50		29334
SCHWINKENDORF, DON	RODMAN.	D-4	INC JUL' 60	245.25	33.90	7.36			203.99
SLLDERNAGEL, DARLEN	E TYPIST	D-1	STA APR'60	225.00	3 0.7 0	6.75	14.50		172.95
TIMM, ROBERT J	ASST ST ENG		INC JUL 60	702.67	76.00	20.58	1 4.6 0		591.49
WALTÉRSON, HOWARD	FOREMAN	H-1	INC APR' 60	416.67	53.80	1 2.5 0	1 4.6 0		335.7 <i>7</i>
WALTERSON, JEAN	DRAFTSMAN	0-5	INC JUL 60	25 2.00	2 5.4 0	7.56			219.04
ZIEGLER, VICTOR	ENGINEER	J-7	INC JUL 60	609.67	91.60	1 8.2 9	1 4.6 0	25.00	460.18
				9,335.48	1,149.30		178.35	100.00	7.704.57

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION PAYROLL - JULY 31, 1960

TEMPORARY EMPLOYEES

	RADE	REMARKS	JUL' 60	WITH XAT		HOSP.	NET PAY
OPERAT OR	2.00	INC APR'60	401.00	6 4.00	1 2.03	,	324.97
LADORER	1.50	RES JUL'60	150.75	22.70	4.53		123.52
LADORER	1.50	RES JULT 60	150.00				132.30
		STA APR' 60	425.51			•	344.64
OPERATOR	1.90	INC APR' 60	386.65	60.00	11.60		315.05
DRILLER	2.10	STA APR'60	483.00	5 9. 50	1 4.4 9		409.01
ASST DRILLER	2.05		35 2.6 0	5 6.5 0	10.53		285.52
OPERATOR	1.95		351.99	5 4.7 0	10.56		286.73
			344.70	43.30	1034		290.56
	2.65		455.30		1 3.5 8		373.12
				5 4.7 0	10.64		289.26
				51.10	10.13		276,41
LADORER	1.50	RES JUL'60	147.75		4.44		143.31
			4,341.99	61730	130.29		3,594.40
	LADORER LADORER ASST DRILLER OPERATOR ORILLER OPERATOR OPERATOR OPERATOR OPERATOR OPERATOR OPERATOR	LADORER 1.50 LADORER 1.50 ASST DRILLER1.85 OPERATOR 1.90 DRILLER 2.10 ASST DRILLER2.05 OPERATOR 1.95 OPERATOR 1.80 DRILLER 2.65 OPERATOR 1.80 OPERATOR 1.80 OPERATOR 1.85	LADORER 1.50 RES JUL'60 LADORER 1.50 RES JUL'60 ASST DRILLER1.85 STA APR'60 OPERATOR 1.90 INC APR'60 DRILLER 2.10 STA APR'60 ASST DRILLER2.05 INC JUL'59 OPERATOR 1.95 INC APR'60 OPERATOR 1.80 INC JUN'60 DRILLER 2.65 INC JUL'59 OPERATOR 1.80 INC MAY'60 OPERATOR 1.85 INC MAY'60	LABORER 1.50 RES JUL'60 150.75 LABORER 1.50 RES JUL'60 150.00 ASST DRILLERI.85 STA APR'60 425.51 OPERATOR 1.90 INC APR'60 38.6.65 DRILLER 2.10 STA APR'60 48.3.00 ASST DRILLER2.05 INC JUL'59 35.2.60 OPERATOR 1.95 INC APR'60 351.99 OPERATOR 1.80 INC JUN'60 344.70 DRILLER 2.65 INC JUL'59 455.30 OPERATOR 1.80 INC MAY'60 354.60 OPERATOR 1.85 INC MAY'60 337.64 LABORER 1.50 RES JUL'60 147.75	LABORER I.50 RES JUL'60 150.75 22.70 LABORER I.50 RES JUL'60 150.00 13.20 ASST DRILLERI.85 STA APR'60 425.51 63.10 OPERATOR I.90 INC APR'60 386.65 60.00 DRILLER 2.10 STA APR'60 483.00 59.50 ASST DRILLER2.05 INC JUL'59 352.60 56.50 OPERATOR I.95 INC APR'60 351.99 54.70 OPERATOR I.80 INC JUN'60 344.70 43.30 DRILLER 2.65 INC JUL'59 455.30 69.00 OPERATOR I.80 INC MAY'60 354.60 54.70 OPERATOR I.85 INC MAY'60 337.64 51.10 LABORER I.50 RES JUL'60 147.75	LABORER 1.50 RES JUL'60 150.75 22.70 4.53 LABORER 1.50 RES JUL'60 150.00 13.20 4.50 ASST DRILLERI.85 STA APR'60 425.51 63.10 12.77 OPERATOR 1.90 INC APR'60 386.65 60.00 11.60 DRILLER 2.10 STA APR'60 483.00 59.50 14.49 ASST DRILLER2.05 INC JUL'59 352.60 56.50 10.58 OPERATOR 1.95 INC APR'60 351.99 54.70 10.56 OPERATOR 1.80 INC JUN'60 344.70 43.30 1034 DRILLER 2.65 INC JUL'59 455.30 69.00 13.68 OPERATOR 1.80 INC MAY'60 354.60 54.70 10.64 OPERATOR 1.85 INC MAY'60 337.64 51.10 10.13 LABORER 1.50 RES JUL'60 147.75	LADORER 1.50 RES JUL'60 150.75 22.70 4.53 LADORER 1.50 RES JUL'60 150.00 13.20 4.50 ASST DRILLERI.85 STA APR'60 425.51 68.10 12.77 OPERATOR 1.90 INC APR'60 386.65 60.00 11.60 DRILLER 2.10 STA APR'60 483.00 59.50 14.49 ASST DRILLER2.05 INC JUL'59 352.60 56.50 10.58 OPERATOR 1.95 INC APR'60 351.99 54.70 10.56 OPERATOR 1.80 INC JUN'60 344.70 43.30 10.34 DRILLER 2.65 INC JUL'59 455.30 69.00 13.68 OPERATOR 1.80 INC MAY'60 354.60 54.70 10.64 OPERATOR 1.85 INC MAY'60 337.64 51.10 10.13 LABORER 1.50 RES JUL'60 147.75 4.44