

MINUTES OF A SPECIAL MEETING OF THE
STATE WATER CONSERVATION COMMISSION

Held in the Chamber of Commerce Rooms at Fargo, North Dakota
September 5, 1950

A special meeting called by the State Water Conservation Commission and representing all interested municipalities, industries and individuals, including contributors of funds to the construction of the Baldhill Reservoir project, met in the Chamber of Commerce Rooms at Fargo, North Dakota on September 5, 1950, for the purpose of discussing and formulating a plan for allocating the stored waters of the Baldhill Reservoir to all interests concerned.

ATTENDING THE MEETING WERE THE FOLLOWING:

Members of State Water Conservation Commission:

Sivert W. Thompson, Devils Lake, North Dakota
Einar H. Dahl, Watford City, " "
Curtis Olson, Valley City, " "
Earle F. Tucker, Bismarck, " "
A. M. Christensen, Minot, " "
J. J. Walsh, Secretary & Chief Engineer, State Engineer
I. A. Acker, Counsel for the State Water Conservation Commission

Others:

Fred Hagen, City Commissioner, Fargo, North Dakota
Allan S. King, Fargo, " "
Ralph F. Croal, States Attorney, Fargo, North Dakota
Kenneth K. Pyle, Southwest Fargo, North Dakota
George E. Lyon, Corps of Engineers, St. Paul, Minnesota
W. C. Lincoln, Construction Engineer, Baldhill Dam, Corps of Engineers, Fargo,
J. B. Bingham, Dist. Manager, American Crystal Sugar Co., Moorhead, Minnesota
A. W. Skuderna, Vice President, American Crystal Sugar Co., Denver, Colorado
O. A. Holtesvig, Moorhead, Minnesota
Byron J. Rockwood, Grand Forks, North Dakota
J. N. Johnson, Mayor, Lisbon,
H. C. Reitan, Northern Pacific Railway Company, Fargo, North Dakota
H. M. Schudlich, Water Service Engineer, Northern Pacific Railway, St. Paul, Minn.
Herbert G. Nilles, Attorney, Great Northern Railway Co., Fargo, North Dakota
E. M. Northenscold, Division Engineer, Soo Line Railway, Minneapolis, Minnesota
Wallace Lindell, Fargo Forum, Fargo North Dakota

Sivert Thompson, Vice Chairman of the State Water Conservation Commission, called the meeting to order at 9:50 o'clock a.m., requesting the opinions of those present with regard to the formula submitted by Atty. I. A. Acker and Commissioner S. W. Thompson for the distribution of the waters of the Baldhill Reservoir. Mr. Thompson stated that the formula as submitted could not be set up on a permanent basis, but was merely a trial proposition in order that a more satisfactory solution could be arrived at as various problems confronted them, and that legislation would probably be necessary to that effect. *See page 8 for formula.*

Atty. Acker: I think Mr. Thompson has explained to you exactly what has happened. At the time of the demand for allocation of waters from the Baldhill Reservoir, the Army Engineers agreed that the State Water Conservation Commission should have a hand in the allocation of the water. Mr. Thompson and I have both made a study of it and we have adopted an arbitrary form based on population and contributions. Most of you here have seen the paper that we made out and the method by which we arrived at this formula. We allocated all the stored waters that can be released. Some will have to be retained. There might be some question as to whether all waters that can be released should be allocated to the various urban centers instead of allocating 75% stored water. We could not interfere, under our law, with the natural flow of the river. The natural flow varies from year to year depending upon rainfall. It would have to be judged by a gaging station above the dam and the amount of water flowing into the dam would have to be figured in the amount of water that flows into the Sheyenne river and into the dam itself, we can not interfere with the natural flow of the river. Riparian owners are entitled to natural flow. Whether there will be such a thing as demand for irrigation of farms along the river we can not tell. Dry years and the advent of the sprinkler systems would have to be considered. Releasing water from the dam would be rather a hard proposition. It has a long way to go before it gets to Fargo. We might give this formula a trial and vary it according to later requirements. If we release water to Fargo there will probably be a need for it along the river by the other urban centers, Lisbon, for example, and to a certain extent Valley City, and by industries, the Great Northern Railway Company, and the American Sugar Beet Company. It is impossible to figure it in exact percentages, but we do believe that we should have something to go by. You have an inter-state situation in the Sheyenne and Red river basins about which we cannot tell at this time. There would have to be a compact. It may be such a thing that if there gets to be a great demand for water-- the stored waters of the Baldhill dam-- the general welfare and needs of industries will have to be considered.

Sivert Thompson: We should like to have your reactions to the type of form that has been set up.

Allan S. King, Fargo: I am representing Mr. Homer Ludwick, who is Secretary of the Eastern North Dakota Water Development Association, and notable to be here. That Association, as you know, is the one who sponsored local contributions to the Baldhill dam, and as such should have a voice. The Association as such has not met to discuss this form nor taken any official action. However, most members have been circularized and asked for suggestions. Generally speaking, we feel the form as adopted is substantially proper. There are a few places where errors have been caused by lack of information. If you like, we can submit a formula based on actual contributions which have been received by the Bank of North Dakota. I wish to call your attention to a few changes. According to actual money banked in the Bank of North Dakota, there may have been commitments but money did not actually show up. In the total share of each contributor column, Grand Forks should read 29.02 and Fargo should read 52. Then there are other minor changes in percentages. But for keeping the record straight your percentages will be o.k. One point in Mr. Acker's statement--as I understand it the Army Engineers have full authority to allocate the waters in the reservoir of the Baldhill Dam.

Mr. Acker: You all understand that stored water is water that would otherwise be wasted if it had not been stored. Consequently the government takes the view that stored water which would flow into Hudson Bay if not stored by the Baldhill Dam, as well as what remains in the dam, is the property of the Government. Therefore they would have the legal right to allocate the water out of the reservoir. The Corps of Engineers have indicated that the State Water Conservation Commission is the body created by law to administer the water laws of the state and take care of water law problems that arise. As I understand it the Army Engineers have requested the State Water Conservation Commission to allocate water according to

some formula or method. I think the Commission, by motion, can adopt the formula right now with a few changes. The State Water Commission has been vested with the right and authority to release the water. The problem differs with different institutions--take the Sugar plant--the thinking is to release waters in the winter time and get the water down the river to take care of sewage problems. In the summer time, municipalities would have to have supplies of water for municipal and domestic uses and for fire protection. Then of course if the farmers along the river should insist on having some water for use with their sprinkler systems, that would be something else again. Those are problems and contingencies that might happen and will be brought up from time to time. The Army Engineers really have control of the distribution of water and have asked the State Water Conservation Commission to supply a formula. The establishment of the formula, at this time, is based on the contributions made and population of cities. Various developments ten years from now may necessitate changing the formula. But we feel that some recognition should be made on the contributions toward the dam. As to contributions, efforts were made to reach anyone who would be concerned. Cities were invited to participate on the basis of population, and industries on their need for water. The Sugar Company came in at that time. The action the Commission takes should recognize the immediate needs, and consider them on their merits.

H. M. Schudlich, St. Paul: What is the available stored water in the reservoir?

Geo. Lyon: 69,500 acre feet.

Mr. Schudlich: We have prior rights since 1905 on the natural flow of the river. Are we covered by that water-right and will we have enough water under that percentage? We have all natural flow from the stream.

Mr. Acker: You have a vested right. This allocation will be in addition to that.

Mr. Schudlich: All we want is our original water-right which is ample to take care of our needs. Valley City is our big station. As long as we have the natural stream flow that is all that is necessary.

Mr. Thompson: Don't you have storage of your own?

Mr. Schudlich: We take it right out of the river, right below the highway.

Kenneth K. Pyle, S.W. Fargo: We think we should have a little bit more than what we have. According to money paid in--our figures on money and population--we figure we are paying the highest per capita--\$4.20. Fargo pays 3.33, Lisbon 3.33 and Grand Forks and Valley City are lower. We think according to population and money paid in, we should have about 1% more of the water than what we are allowed.

Mr. Thompson: The difference in percentage arises by not figuring the latest population or contribution.

Mr. Pyle: The figure used on this sheet is 1,000.

Mr. Thompson: The figures are subject to revision.

Mr. Acker: It would have to be more than 1,000--about 1,060.

Mr. Thompson: Is the contribution correct?

Mr. Pyle: The contribution is correct. I think there is a mistake in figures.

Mr. King: I computed this and came close to Mr. Thomson's figures, I think the calculation is correct--4.20 per capita. Fargo is to build a dam from the Sheyenne to the Red River, so this will almost have to be figured on in recognizing Fargo's future percentages, but Fargo feels that that amount will be adequate at the present time.

Mr. Thomson: There are two computations, one is based on population and the other is based on contributions. If the contribution is \$6,000, it would be \$6.00 per capita. When this thing started originally they divided it on a population basis, they wanted to be fair. Not every community came in on the dam.

Mr. Acker: Do you gentlemen feel there should be a change in the 25 and 75% basis?

Mr. King: I have no personal objection to the formula. If divided on a percentage basis we can break this formula down and establish a formula that will stand up. I think it is wise to establish such a formula.

Mr. Thomson: In view of the fact that the Government puts in most of the money, it should be based on the population and also on contributions, otherwise the project would not be built. What is your feeling on this?

Mr. King: At the present time we are not taking any water, but we feel it is not quite fair for the money we have put in.

Mr. Lyon: You have to recognize the industries who have no population.

Mr. King: Industries don't get any of the 75%.

J. N. Johnson, Lisbon: We feel satisfied, except for the suggestions made here now, and want to help a good thing along. Lisbon does not have any use for water right now or for many years. Some consideration was given to it a few years back. We had a water problem and shortage of water and were dependent on artesian wells. We have overcome this difficulty and have drilled new wells so should have ample water for many years to come. At the present time we have no particular use for additional water, except that we want to see plenty of fresh water flowing down the river. There is some talk of irrigating, but as far as allocation, we are more than pleased. That is the report from our city.

Mr. Lyon: First, I have a statement prepared by our office several years ago. The policy expressed therein has never been submitted to higher authority and hence does not have the approval of our Department. It merely represents the views of the St. Paul District. (Mr. Lyon read Statement).

BALDHILL PROJECT - PRIORITY OF WATER USE

The Baldhill Reservoir will be operated by the Corps of Engineers to obtain maximum benefits for water supply and pollution abatement along the Sheyenne and Red Rivers in conjunction with flood control. Primary consideration will be given to needs on the Sheyenne River, but the project plan includes provision for diversion to Fargo on the Red River. Operation of the diversion must be in accordance with the intent of Congress. Tentative operating plans include a minimum reservoir release to assure adequate water supply along the Sheyenne River between the reservoir and Kindred. Greater flows will be released as required by greater demands during periods of drought and/or periods of high transmission losses. The plan of reservoir operation is not assumed to be inflexible and consideration will be given to increasing the amount of discharge from the reservoir when downstream interests believe conditions warrant. Although the reservoir will be operated by the Corps

of Engineers, the assigning of water-rights and the determination of priorities of water use, consistent with the intent of Congress, should be handled by the North Dakota State Water Conservation Commission under existing state law. Should use of Red River water by interests in Minnesota be deemed prejudicial to the best interests of the project as authorized by Congress, the Corps of Engineers will point out such inconsistency to the Minnesota Conservation Department in anticipation that it will act in a similar capacity to the North Dakota Water Conservation Commission in furthering the intent of Congress. It is conceivable that the water commissions of the two states may set up a joint commission to guide a water use program which will preserve the essential features of the Baldhill project.

To recapitulate, the operation of Baldhill Reservoir and determination of release therefrom will be the function of the Corps of Engineers. The allocation or determination of priority use of water in the stream below the reservoir will be the function of the state or states, insofar as consistent with the intent of the project as authorized by Congress. Under such a program, the control of the Fargo Diversion would be vested in the North Dakota Water Conservation Commission, subject to the right of the Corps of Engineers to impose such regulations as may be necessary to effect the intent of Congress.

Mr. Lyon: In discussing allocation of full storage in the reservoir, our proposed operation requires two-thirds for pollution abatement. The water supply needs are relatively small. Of course we recognize first the municipal and industrial needs. They are all taken into account in your proposed allocation except pollution abatement.

Mr. Thompson: In your opinion would this formula work out in practice if adapted?

Mr. Lyon: I couldn't say. I feel sure we couldn't allocate the entire storage to water supply--at least two-thirds will be dependent on pollution requirements.

Mr. Thompson: I believe we could set up a formula where the amount of water released would be dependent on pollution requirements without giving figures. But whatever water is released the percentages should apply to that.

Mr. Lyon: If the operations to meet the intent of Congress are met.

Mr. King: You are not running a sewage line from the Baldhill Dam--you are releasing water into a stream in which many people have an interest. In setting up any formula or guide for the future one of the greater items to be considered is not to jeopardize those already having established a priority--also on impounded water, consideration should be given as to whether it is a request for future water which might jeopardize future interests. Some may have a number of uses before it gets out of the country, such as sewage pollution abatement, industries, etc. We will use the water through our condensers and put it back into the river. The water is used many times.

Mr. Lyon: I might point out what our operation is set up to cover. West Fargo has a water supply intake of 2.4 second feet, Fargo 11.5 sec. ft. We made an allowance for Moorhead of 3.5 and 7½ for the beet sugar industry. The 15 sec. f.e.t. in the Fargo area was increased to 22.5 during sugar plant operation. To meet the pollution requirements, 4.2 sec. ft. at West Fargo would have to be increased to 11 to 14. On the other side, the main flow at Fargo would be increased from 15 up to 45 to 53 to meet your pollution abatement requirements. I think the formula as proposed brings out the requirements and establishes the priority to those contributing, in reasonable figures--that is the urban centers. Actually the reservoir will be operated to supplement natural flow.

Mr. Thompson: Do you think the percentages as set up are reasonably fair or will it handicap administration of law?

Mr. Lyon: The percentages will not interfere with riparian or private use. We will see that the original parties get water after further development. We wouldn't know, if done on a percentage basis, whether cities or industries would be given prior rights. It is tied up with the natural flow. We do feel that we have to operate the reservoir according to the intent and requirements of the project, as authorized by Congress.

Mr. Acker: As far as stored water is concerned, priorities based on water, under our law, really applies to natural flow; and what is stored belongs to the Government. It is water kept from going to waste if it had not been stored. This allocation by the State Water Commission, based on these percentages, would amount to virtually the same thing as a priority, as the State Water Conservation Commission by its declaration has reserved this water for this particular purpose.

Mr. Rockwood, Grand Forks: It seems to me that the adoption of 75% and 25% recognizes that pollution factor as far as the number of people in a community discharging sewage, who have that pollution problem.

H. C. Reitan, Fargo: Wouldn't the Water Commission prevent emptying any raw sewage into the Sheyenne?

Mr. Thompson: The Tri-State Sanitation Committee has already adopted very strict rules and regulations, as far as anything new is concerned, it is almost perfect.

Mr. Reitan: The pollution control would be a minor item. The big thing is the water that is available.

Mr. Lyon: We based our regulations on 92 or 93 pollution abatement. We have based our operation on those requirements.

Mr. Thompson: Pollution standards have already been adopted by the North Dakota State Water Conservation Commission.

Mr. Lyon: There would have to be some water for residual use, for instance, the affluent from Fargo and Moorhead will be dumped into the Red. There should be enough water to purify the river so Grand Forks will have water when it gets down there. We might have distribution of water assigned to various industries and municipalities in this area. With what goes back into the stream, Grand Forks, instead of 25 or 26 as shown, could use 80%. It would be dependent upon the condition of the water when it gets there.

Mr. Thompson: How much would be dependent on water flow?

Mr. Lyon: Stream flow includes impounded flow. Essentially we feel that the reservoir takes water out of the river during spring runoff, which may go on for two or three months. We store out of natural flow to maintain a minimum flow. Below Kindred, you have an inflow from a sand area. At times there is no flow at Kindred, in which case you would have to let out a certain amount to meet the need at Kindred. For instance in summer--then you figure that if you can supply enough water down the Sheyenne--1 sec. ft. at Kindred--that will meet the requirements at that point, and to do that you have to let out three times as much. During ice cover, a minimum of 3 sec. ft. is required at Kindred and to meet this we may have to let out as much as 25 sec. ft. at Baldhill.

Mr. Bingham; Moorhead: We consider the percentage a little low. We figure it at least double. We propose to get another 5,000,000 gallons daily.

Mr. Thompson: We will have to make a special concession to take water for only short periods during the year.

Mr. Bingham: Our intake is from the low bed--flushing in the spring when the river is high. We want to discharge our wastes if the river is high enough. It is all under state supervision.

Mr. King: What per cent of all the water used by Grand Forks is returned to the river?

Mr. Lyon: In ordinary times, about 80% of the supply goes back into the stream. For the beet sugar plant 100% of the supply is withheld.

Mr. Skuderna, Denver: I think ours is a reasonable deal pure and simple. We take water from September 1 to January 1,--5,000,000 gallons per day. Maybe some special consideration should be given that industry for that period of time. We don't want any more than our share but we want assurance that in low years we will have enough to operate. The basis of 25 and 75% is about as fair as we can get. One thing that does concern these gentlemen is that if irrigation is started through the sprinkler system, what are you going to do about that later. There is no question as to prior riparian rights, but those coming in now with no water-rights. North Dakota is going to get in some real allocation problems.

Mr. Acker: We are satisfied that on some of the streams in our state during years of minimum flows the appropriations now are more than can be supplied with water. On major streams like the Missouri, there is an adequate supply of water.

Mr. Skuderna: That is what we had in mind, possibly to make an allocation for our share.

Mr. Thompson: Couldn't it be put on an acre feet basis and spread over that period of time?

Mr. Bingham: Because of very dry years we haven't gotten in here before. We have feared the water situation and have expected to see the river dropping.

Mr. Thompson: There is no charge for storage on the Red River.

Mr. Bingham: But if some recognition could be given to us on a reasonable proposition it would be very helpful to us. Put this plan as a sort of feeler. Get the feel of the thing and see how it works out.

Mr. Dahl: Do the cities require all the stored water in the reservoir or just a part of it?

Mr. Lyon: In the plan of operation we worked out for the drought of the 30's we were able to give a water supply to Fargo, Moorhead and West Fargo and pollution abatement through a 7, 8 or 9 year period. The last 17 months we couldn't give enough water for pollution requirements, but the cities had enough for consumptive purposes. Wouldn't it be possible to allocate a water-right of 7½ million gallons to the City of Fargo without indicating how much came from Baldhill Reservoir? As it got under way each city would be entitled to so many gallons per day. But the main thing is not for someone else to come in at a later date and take that water.

Mr. Acker: On the basis of stored water you could apply percentages to acre feet.

Mr. Thompson: Acre feet or second feet--as long as water is available-- and when water is not available get back to percentages.

Mr. King: What is the procedure of the Commission when there is a request for a water-right? In all instances is there a hearing?

Mr. Thompson: A water-right granted by the State Engineer requires approval by the Commission. There is a publication and hearing.

Mr. King: With regard to an application for water from the Sheyenne and Red Rivers, do these parties have to be notified?

Mr. Acker: To make it applicable. As to these people along the river using sprinkler systems you want to be careful. By filing an application they have a right to that stored water.

Mr. Bingham: Are there any water allocations as to acre feet on the Sheyenne River now?

Mr. Walsh: Just a few applications.

Mr. Acker: Stored water is flood water that would otherwise go to waste.

Mr. Bingham: Isn't a water-right gained by use for a certain length of time?

Mr. Acker: Since 1905 we have had a riparian doctrine and an appropriation doctrine. The law says that a riparian owner has a right to the natural flow of the river. He can use the water as it goes by, but can not impair the natural flow of the stream. With reference to use of water, a riparian owner has a right to reasonable use. Even under the riparian doctrine a person can irrigate without a water-right. He has that right as a riparian owner, but in doing that he can not impair the right of any riparian owner below him. Under laws of our state, with regard to municipalities and industries, a special section of our code definitely provides that they may use the water of a stream for beneficial uses. When it comes to water-rights for irrigation, if by so doing they should appropriate more water than the natural flow and create a shortage, the courts would say that municipalities unquestionably have priority because of general or public welfare.

Mr. Lyon: Doesn't use for irrigation impair the stream?

Mr. Acker: It may vary more or less. In irrigating from the Yellowstone and Missouri the fight for water has not been very intense and there have been no great problems.

Mr. Dahl: Return flow from irrigation is estimated at about 20% returned to the river. Sandy soil has more of a return.

Mr. Bingham requested that Mr. Skuderna, Vice President of the American Crystal Sugar Company, of Denver, Colorado, be permitted to speak to those present concerning their experience with a cattle dam in Colorado, which was sponsored by the Army Engineers, and is facing similar problems to the Baldhill Dam.

Mr. Skuderna: The operation of the cattle dam has substantial holdings in Colorado. The structure was built by the Army Engineers with contributions similar to the Baldhill Dam, with a concrete reservoir designed for 675,000 acre feet of water. There are 20,000 acre feet from which water cannot be drawn. A compact between Colorado and Kansas, effected through a treaty ratified by those states and

signed and passed by Congress was effected as of last year. Our dam is being operated on the basis of Colorado 60% impounded water, Kansas 40%. Kansas consumes all or more than 40% of 1,000 sec. ft. in one day. The dam is built in Kansas, at the line there is a flow of 400 sec. ft. of water. The loss amounts to as much as 40% in 55 miles due to seepage loss. The ditches below the dam are entitled to 600 sec. ft. of water provided they take 1,000 sec. ft. that day. Of course we have a water-right dating back to 1865-98 and have had a lot of trouble. 600 sec. ft. of water are allowed to flow so that ditches may work together. The proposal has been official and they ask that the ditches below the dam are on certain percentages. It was put into operation on March 1, and has worked beautifully. Those people who wanted water have gotten more water than they expected to. They have their reservoir full at Kansas and I think that everybody concerned--the water commission, Army Engineers and others feel that they have a distribution of water which meets the general needs of those people interested in it.

Fred Fredrickson: I believe in the integrity of the state water laws. I am in disagreement that the government has any claim to stored waters of the Baldhill reservoir. I believe that neither the state nor the government has ownership of waters, and especially in a non-navigable stream. I believe that no ownership can ever be established by any one in the water course or stored reservoir without further legislation. The fact that the government has built the dam does not give them any claim to the water. In many instances they built the dam and the operation is left in local hands. Certainly in such instances they would surrender any claim to jurisdiction over these stored waters. Of course it hands over cases in the matter of ownership or jurisdiction over water. Right now in California water-rights are of prime importance. However, it is in point, because the cases there are on navigable streams.

Mr. Thompson: Don't you consider the Sheyenne or Red Rivers navigable streams?

Mr. Fredrickson: No. In a resolution adopted several years ago and presented to the Legislature, we requested that the government take action to make it non-navigable. But as Mr. King says no swing bridge or draw bridges have been constructed, so it is reasonable to assume that the government agreed that it is non-navigable. I feel in the matter of stored waters that the jurisdiction of the stored water applies fully as much as it does to flowing water. The United States obtains title because of works and has no interest in the division of waters except to operate the project in accordance with authorization. Coming back to claims for water-rights, according to the 1944 flood control act, I don't think we have any claims to priority of water use. I feel then that the subject of allocation of water is strictly one for the State of North Dakota and for the State of Minnesota. And my second point is that no final division of waters can be made until a compact between the two states has been effected. The Supreme Court has held that interstate water can only be divided by compact or treaty of the states effected. Waters of the Red river extend to its tributaries. The first thing to be determined is how much of the waters in the Sheyenne River belong to North Dakota. How much is North Dakota entitled to from the minor tributaries. Before final and definite division can be made there must be a compact between the two states. As I see it, the legal aspects of the divisions at this time are not before us. We are only now trying to devise operational methods so we will have some information as to how much we will need when it comes to the time to enter into such a compact. The operation of the Baldhill Reservoir as I see it is under the jurisdiction of the Engineers as far as the main or final operation is concerned, it is up to the State Water Conservation Commission to indicate how they want those stored waters allocated. All prior claims to water in the Sheyenne River whether appropriative, prescriptive or riparian rights which might apply to waters in the Sheyenne River, should be considered, and municipal prior owners and water users who have been

along the stream for a number of years have some right under those considerations. After this is determined I feel we should still leave a percentage between those and the amount to be allocated for possible claims that might be overlooked, and finally allocation would be much more effective if made in second feet or acre feet, which may be converted into percentages. It is certainly more consistent to measure water in sec. ft. or acre feet. I feel there is much research work to be done. I feel that allocating or assigning 75% to population is quite fair. The feasibility of the project was predicated on the ratio of cost to benefits, after Congress has authorized it the public in general has a stake in the project.

Mr. Lyon: The resolution requesting that the stream be declared non-navigable has never been passed.

Mr. Acker: A state law in 1935 declared that every meandered lake is navigable. My research has convinced me that waters impounded behind a reservoir, as long as it remains impounded and not released into the channel and does not affect the natural flow of the river, the waters that would otherwise have gone to waste, are virtually the property of the government or of the individual or group that own the dam. That is why the Army Engineers turned over to the State Water Conservation Commission the right to allocate the waters of the Baldhill Reservoir. In the case of Lake Darling, during drought years after Lake Darling dam was constructed, the Eaton Project was desperately in need of water. An agreement was made with the Secretary of Agriculture to give them 10,000 acre ft.

Mr. Fredrickson: The Biological Survey filed a claim on the stored waters, that is why they granted that water.

Mr. Acker: Taken for example the Bureau of Reclamation, the Commission has by declaration reserved the water for itself so that the State of North Dakota owns the water. The Government requested the Commission to reserve it. We built that dam, we are entitled to the stored waters.

Fred Hagen, Fargo: Mr. King, representing the Association, has stated our position very well. We are very well satisfied with the allocation and feel sure that we will be very fairly treated in the allocation of the various water allocations as they are met. We want to cooperate in every way possible. Surveys for the diversion ditch are now being made and we hope to progress on construction as soon as these surveys are made.

Mr. Rockwood: We tried out a similar form some years ago, and all agree that that form is very satisfactory.

Mr. Thompson: Are there any objections if some special consideration be granted to the sugar plant?

Mr. King: I feel that a special allocation should be made to them during their operating season. You are talking about impounding water. If you let that out over a longer period of time, there will be fewer acre feet.

Mr. Thompson: They have a right to expect a little higher percentage of river flow at the time they are operating.

Mr. Christensen: Will there be enough storage there to take care of their needs?

Mr. Hagen: You are limiting to a maximum use many of these farmers.

Mr. Christensen: You are dealing with 500 people, 1250 different contacts from both sides of the river. All these people benefit by this water, plus all you members. Are these adequate to take care of their needs?

Mr. Lyon: Yes.

Mr. Christensen: So you don't need additional flow for pollution abatement?

Mr. Lyon: No. All waters are impounded in agreement with the Minnesota Water Pollution Control Commission.

Mr. Reitan: Have these percentages been changed to sec. ft. and acre feet? It should be clear to everyone concerned.

Mr. Thompson to Mr. Bingham: Water impounded behind the dam is going to be let out in the fall. You would probably wait for a year round.

Mr. Lyon: Baldhill will carry over. In the 30's storage was carried over for 10 years. The maximum release was about 26,000 acre feet in the driest year. Outside of the runoff period there might be 250 days dry period. In other words the operation of the Baldhill Reservoir would stretch out through the entire drought.

Mr. Thompson: If it works it should be rather a simple matter to present it to the Legislature and get it ratified.

Mr. Tucker: I think this will be carried out a lot different on Baldhill Dam than on the Missouri River. In regard to the use of waters from Fort Peck reservoir for the Souris project, it was discussed at a meeting in which General Pick said that if he didn't have any storage on the Missouri River, he probably couldn't give them enough waters for the Souris project out of the Fort Peck reservoir. That would probably be for navigation purposes from Sioux City on.

Mr. Thompson: Fort Peck was built for navigation and flood control. It would have to be operated as such.

Mr. Lyon: We feel we should operate Baldhill Reservoir, which has cost about 2½ million dollars, with allocation of water-rights by the Commission, the allocation of the water released to be set up as in our original report. We based our project and the operation of it on meeting certain needs and that was the basis of Congressional approval. We feel that it should be operated on that basis. We would release enough water to bring the stream flow up so that users would have enough water.

Mr. Thompson: As far as the agreement for the release of a certain amount of acre feet for each municipality or industry, our agreement would have to provide for the allocation on a percentage of what they did release. Set it out on acre and second feet up to the point where water is available and after that take percentage of what was released to comply with local requirements.

Mr. Acker: In working it out from there, you wouldn't know how many acre feet would be available for release.

Mr. Lyon: In a very dry year you could release 25,000 acre feet, in annormal year perhaps 500.

Mr. Tucker: The sugar beet company would be interested in keeping it balanced to the point whereby it would be set up as to so much percentage to be had at a special time.

Mr. Lyon: They would need it about 4 months in the year.

Mr. Bingham: That's right. We figure about 110 days. It might hold water for 8 or 10 years, but the evaporation would be so high the water wouldn't be fit to use.

Mr. Lyon: You might hold the reservoir at a fairly high level one year, the next year you will have runoff from flood control. If you don't release, and snowfall is low, it will take all your water. During a 6, 7, or 8 year period you may not have any water to waste and the water in the reservoir will be released for use. It is the only way we can meet the situation in carrying over the drought period.

Man from Sterling: May I make this statement? If you don't clean that reservoir out from year to year the water gets pretty stale. It does in all reservoirs in North Dakota. Concentration would be pretty bad.

Mr. Acker: I should like to ask you what claim the Wildlife has, and the International Joint Commission, in the waters of the Baldhill Dam.. What are the plans in that regard?

Mr. Lyon: There are no claims to water.

Mr. Acker: As I understand it, there will be a lot of fish in there and it will be used for recreation-- are there any claims?

Mr. Olson: No claims at all. (Mr. Olson stated that the Baldhill dam will be operating fully next year.)

Mr. Lyon: The primary use of the Baldhill Reservoir is for flood control and municipal and industrial use.

Mr. Hagen: I would like to express our appreciation of this Association to the Water Commission for setting this meeting at Fargo. It is a very vital problem to eastern North Dakota.

The meeting adjourned at 11:45 a.m.

Setup of Distribution of Baldhill Dam Waters on Basis That 25% of Waters Would Be Proportioned Out on Basis of Total Cash Contributions Made and 75% of Waters Would Be Prorated To Municipalities On Basis of 1950 Population

Army Engineers Estimate Dam Will Impound 69,000 AcreFeet

	Total Contributed		Share of 25%		Share of 75%		Share in	
	Amount	%	of Stored Water	Population	%	Of Stored Water	%	Ac. Ft.
			Based on Contributions			Based on Population		
Fargo	153,811.00	55.69	13.92	37 601	50.77	38.08	49.1	52.00 35,880
Grand Forks	22,749.50	8.24	2.06	26 617	35.94	26.96	27.4	29.02 20,023
Valley City	30 681.50	11.11	2.78	6 823	9.21	6.91	9.1	9.69 6,686
So. West Fargo	4 200.00	1.52	.38	1 000	1.35	1.01	1.3	1.39 959
Lisbon	6 000.00	2.17	.54	2 019	2.73	2.04	2.4	2.58 1,780
Sugar Company	43 758 00	15.84	3.96				3.7	3.96 2,732
Union Stock Yards	2 500.00	.90	.23				.2	.23 159
Great Northern R. R. Co.	3 750.00	1.36	.34				.5	.34 235
Northern Pacific R. R. Co.	3 750.00	1.36	.34				.5	.34 235
Soo Line R. R. Co.	1 250.00	.45	.11				.1	.11 76
Northern States Power Co.	3 750.00	1.36	.34				.5	.34 235
TOTAL	276 200.00	100.00	25.00	74 060	100.00	75.00	94.9	100.00 69,000

MINUTES OF A MEETING OF THE
STATE WATER CONSERVATION COMMISSION

Held in the Gardner Hotel, Fargo, North Dakota
September 5, 1950

Following the morning meeting held in the Chamber of Commerce rooms, the Members of the Commission met for a regular business meeting in the Gardner Hotel at 1:45 p.m. Present at this meeting were: Commissioners Thompson, Einar Dahl, Olson, Tucker, A. M. Christensen and Secretary J. J. Walsh. Others present at this meeting included Geo. Lyon, Corps of Engineers, St. Paul, Fred J. Fredrickson of Valley City, a delegation from Pembina County including Mr. Boyd Rennick and other county Commissioners and John E. Beach of Cass County.

Mr. John E. Beach, representing the Sheyenne River improvement delegation, explained their problems and plans for diverting overflow and flood waters from the Sheyenne River to prevent flooding of farm lands. About 12,000 acres were flooded out during the past season as a result of floods. This year the river continued to flood until June 19. Mr. Beach explained to the Commission that the Sheyenne River does not have sufficient capacity at West Fargo to carry off the larger flows entering the valley below, resulting in the overflowing of the river banks and spreading over the country, flooding farm land. He said there is a petition to establish a county drainage ditch to pick up the water and run it into the river and to use existing drain #27 and Rose Coulee, which carries about 670 sec. ft. Their plan is to take water down to a point $4\frac{1}{2}$ miles farther north, where there is a deeper channel. He explained that his appearance before this meeting was to request a commitment from the State Water Commission to aid in the construction. Plans have been submitted to the Army Engineers for approval in enlarging the district. Field work has been in progress and they are about ready to take out trees and debris. In the authorized Red River approved plan for the lower Red and Rush rivers the Army Engineers were allowed \$50,000 for emergency snagging. This project has been approved by Congress and they have appropriated the money as a result of the flood this year. There is still some objection to the original project. According to Mr. Beach's report, local interests did not back the original plan authorized by Congress. He said the Engineers were now recommending that the emergency snagging go ahead at this time and that a contract be let on snagging on the basis of their restudy. The Fargo drainage district, Army Engineers, and the Sugar Beet company are all promoting this diversion in cooperation with the City of Fargo, who have charge of the diversion ditch, which will be $4\frac{1}{2}$ miles long and large enough to take care of flood waters, and of the same capacity throughout the length of the canal. It was suggested by the Commission that if Fargo needs a diversion dam in the Sheyenne River they should install sluice gates to keep the river channel open, the gates to be opened during floods. Mr. Thompson said that before any consideration could be given to their request, they would have to secure a cost estimate, plans and specifications on what Fargo has agreed to do, and also a cost estimate on the plan of proposed drainage, to which the Commission could probably contribute 40%, the application to originate with the drainage district, who will share in the cost with the City of Fargo. The Army has estimated the cost at \$100,000. The Water Commission advised them that it would be necessary to furnish a report on the amount of agricultural land which would be drained, as they cannot give aid to any land outside of the drainage district, and agreed to go as far as possible to aid them after plans have been approved by the Soil Conservation Service.

Mr. Boyd Rennick, speaking for the Pembina County Commissioners, advised the Commission that they were seeking cooperation from the Water Commission for entering into a portion of the costs of culverts for drains crossing section lines. Due to extreme flood conditions they let a lot of bridge contracts. Some are already completed, others are still to be done. Water has undermined and washed out some of the concrete bridges, and many bridges have been lost. They stated that if it were within the limitation of the Water Commission they should like to request approval and participation in the cost and

installation of culverts across section lines on Drains No. 47 and No. 55 in Pembina County, which were unforseen at the time the budget was set up. These are both new drains recently let by the drainage board. The cost amounts to about \$9,000. Atty. Acker advised that where it was necessary to facilitate the construction or cleanout of a drain, the opinion of the Atty. General should be requested with regard to authorizing the Commission to pay a percentage of the costs of installing culverts on Drain No. 47, estimated to cost \$3,896.94, and costs of installing culverts on Drain No. 55 amounting to \$5,030.40, which makes a grand total of \$8,927.34. Mr. Acker was of the opinion that where a culvert just conveys water, the county commissioners are invested with the authority of maintaining the drain, which includes the culvert, and that the Commission would be authorized to help out in the matter of laying a culvert under the road for the construction of a drain. Mr. Rennick explained that the new construction work in Pembina County will take more state funds than has been allocated to them. They were informed by the Commission that money not used by other counties may be reallocated later on, of which Pembina County may receive some additional allocation. The Commissioners advised the County to make a formal request for additional funds for culverts, and the Water Commission would then request the opinion of the Attorney General as to whether the Water Commission can legally grant any part of the fund to their assistance.

The Pembina County Commissioners also informed the Commission concerning their flood situation. They were informed that gates were opened releasing water from lakes in Manitoba and the Assiniboine River which was flowing into Pembina County. These gates were opened in 1949, and as they were unable to shut them a flood was caused on the Pembina River. They have had three consecutive floods on the Pembina River this year. The County Commissioners requested that if it were within the jurisdiction of the Commission, that something be done to alleviate the serious situation of people living in the vicinity of the Tongue River. Mr. Lyon explained that Rock Lake was a low structure, and the floods which came from excessive snowfall, being high, completely submerged the low channel dam. Mr. Lyon suggested that Sec. Walsh check up with the International Joint Commission at one of their meetings.

Commissioner Einar Dahl made a motion that the minutes of the August 12, 1950 meeting of the State Water Conservation Commission be approved and filed in the office of the water commission. The motion was seconded by Commissioner Christensen. Motion carried.

Commissioner Tucker made a motion, which was seconded by Commissioner Christensen, that the Financial report of the State Water Conservation Commission for the month of August, 1950, be approved and filed. Upon a vote of the members of the Commission the motion unanimously carried.

A letter and statement from Attys. Sullivan, Kelsch & Scanlon, Mandan, with respect to an itemized statement of fees in connection with the execution of a brief by them re Donald W. Ingalls, et al, appellants v. Heart River Irrigation District, respondents, was examined by the Commissioners. Commissioner Olson moved that the statement of expenses as submitted by Attys. Sullivan, Kelsch & Scanlon of Mandan, in the amount of \$1225.00, be approved for payment. The motion was seconded by Commissioner Dahl. Upon roll call by the Chairman, Commissioners Dahl, Tucker, Christensen, Einar Dahl and Thompson all voted in favor of the motion. Motion carried.

Dean H. L. Walster of the North Dakota Agricultural College, Fargo, entered the meeting at 3 o'clock p.m.

A voucher in the amount of \$400 from the National Reclamation Association, requesting annual membership fees from the North Dakota Water Conservation Commission for the year 1951 was considered, and Commissioner Christensen moved that the sum of \$400.00 be paid to the National Reclamation Association for annual membership subscription for the year 1951. The motion was seconded by Commissioner Tucker. Upon roll call by the Chairman, Commissioners Olson, Tucker, Dahl, Christensen and Thompson all voted aye. Motion carried.

Preparation of the budget request for appropriation of funds to the State Water Conservation Commission for the fiscal year 1951-1953 was discussed and a committee appointed to meet with the Governor to work out their requirements. Members appointed on this committee were Einar Dahl, Earle Tucker, Math Dahl, Secretary Walsh and Governor Aandahl, a special meeting to be called for that purpose.

The Chairman introduced the subject of the Tri-State Compact, and stated that it was the opinion of the Water Commission that this compact should be continued. He requested the reactions of those present to continuation of the Tri-State Act. Mr. Fred Fredrickson and Dean Walster, Chairman of the Tri-State Commission, were of the opinion that if the Federal laws could be changed, a Bi-State could be created, since South Dakota was no longer showing any interest in the matter. Mr. Fredrickson said he had received a letter from Mr. E. V. Willard, Deputy Commissioner of Conservation, St. Paul, Minnesota, with comments on the problem, and that Grand Forks was temporarily interested, the idea being promoted by Mr. Byron Rockwood. Mr. Fredrickson stated that sometime ago they had written a law for the Bi-State at St. Paul and left a draft which they were to study, revamp and return, so it would be ready for the 1949 Legislative session. The last meeting of the Tri-State Commission was held at Fargo and South Dakota then was still interested. He said that if the Commission wished to try holding a Tri-State meeting at Grand Forks, they should contact Oscar Lunseth. It was suggested that Dean Walster take it up with Byron Rockwood of Grand Forks.

Commissioner Thompson read a letter from Governor Aandahl, addressed to the Board of Engineers for Rivers and Harbors, requesting extension of time for review of the Pembina-Tongue river flood control. Mr. Fredrickson suggested that the Water Commission send an engineer down to Cavalier, Pembina County, to study the report of the engineers on the Tongue and then go into the field and make an examination. Then a meeting should be held with local people to explain the situation to them. After that the Corps of Engineers at St. Paul should be contacted. The report at Washington calls for a cash contribution and for rights-of-way and bridges, many bridges have to be rebuilt. This new report requires the abandonment of the Pembina project at Walhalla. Mr. Fredrickson suggested that the abandonment clause be deleted and modified to stand as was. He also suggested they ask for additional cooperation from the Government to relieve local interests.

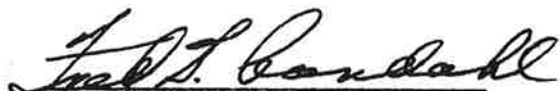
The President's Water Resources Policy Commission was discussed. Mr. Fredrickson reported to the Commissioners and presented Dr. J. L. Coulter's report which will be submitted to the President's Commission. He felt it necessary that reclamation in the western states be brought before the President so that it will be up to date, stressing reasons for irrigation to offset unfavorable publicity made public against reclamation in the west. He stated his purpose in appearing before the Commission was to find out if the Water Commission would be willing to share in the cost of preparing Dr. Coulter's statement to the President's Commission. Mr. Fredrickson advised the Commission they would need \$100 from North Dakota for filing Dr. John Lee Coulter's (Consulting Economist, Washington, D.C.) report. Mr. Fredrickson recommended payment of this sum. It was moved by Commissioner Christensen that the North Dakota Water Commission appropriate \$100 to this cause. The motion was seconded by Commissioner Olson. Upon call of the roll by the Chairman, Commissioners Olson, Dahl, Tucker, Christensen and Thompson all voted in favor of the motion. Motion carried.

The Commissioners discussed the National Reclamation Association meeting which is to be held at Spokane, Washington on November 15, 16, and 17, and read a letter from Mr. A. J. Dexter, Agricultural Agent, Northern Pacific Railway, regarding information on itinerary and tours conducted by the railway companies for this meeting.

As there was no further business, the meeting adjourned at 4:30 o'clock p.m.

ATTEST:

Respectfully submitted,


Chairman


Secretary

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION
 MONTHLY REPORT OF ACCOUNTS AS OF SEPTEMBER 30, 1950
 1949-1951 APPROPRIATIONS

Fund No.	Appropriation	Available July 1949	Expended to Aug. 31, 1950	Expended September 1950	Balance Sept. 30, 1950
1	Commissioner's Per Diem and Expenses	\$ 4,000.00	\$ 2,505.68	\$ 300.55	\$ 1,193.77
2	Administration	30,000.00	21,367.58	921.86	12,922.62
	Collections and Refunds	5,212.06			
3	Maintenance of Existing Dams	100,000.00	79,441.72	19,527.51	22,537.71
	Collections and Refunds	21,506.94			
4	International and Interstate Commissioner's and Conference Expense	12,000.00	6,871.29	122.44	5,006.27
5	Topographic and Conservation, Cooperation with the U.S.G.S. plus transfers	33,085.60	16,109.64	N11	16,975.96
6	Hydrographic Surveys, Coop. with U.S.G.S.	20,000.00	10,379.23	1,561.90	8,149.74
	Refund	90.87			
7	Salary-State Engineer	5,400.00	3,150.00	225.00	2,025.00
8	Construction and Reconstruction - Drains or Irrigations .	150,000.00	25,644.73	N11	124,355.27
9	Engineering & Geological Survey & Demonstrations	30,000.00	19,282.64	875.34	9,842.02
10	Cooperation with U.S. Dept., small projects & for organizing Conservation & Irrigation Districts . .	135,000.00	3,652.43	2,625.42	128,722.15
11	Other Investigations, Surveys and Etc.	90,000.00	67,686.28	4,691.83	17,658.65
	Refund	36.76			
12	Construction Bond Guaranty Fund	70,541.00			70,541.00
		<u>\$ 706,873.23</u>	<u>\$256,091.22</u>	<u>\$ 30,851.85</u>	<u>\$ 419,930.16</u>

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NORTH DAKOTA STATE WATER CONSERVATION COMMISSION
 MONTHLY REPORT OF ACCOUNTS AS OF SEPTEMBER 30, 1950
 1947-1949 APPROPRIATIONS

Fund No.	Appropriation	Available July 1949	Expended to September 30, 1950	Balance September 30, 1950
1	Commissioner's Per Diem and Expenses	\$ 4,000.00	\$3,855.35	\$ 144.65
2	Administration	30,000.00	31,721.41	3,799.00
	Plus refunds and collections	5,520.41		
3	Maintenance of Existing Dams	45,000.00	72,132.26	76.85
	Plus refunds and donations for dam repairs	27,209.11		
4	Tri-State Waters and Portion of Administration and Conference Expenses	1,000.00	160.92	839.08
5	International and Interstate Compacts	10,000.00	8,522.05	1,477.95
6	Topographic and Conservation Branches, Cooperation with the U.S.G.S.	30,000.00	30,000.00	Nil
7	Hydrographic Surveys, Cooperation with the U.S.G.S.	20,000.00	20,000.00	Nil
8	State Engineer's Salary	5,400.00	5,400.00	Nil
9	Reconstruction of Drains or Irrigation	200,000.00	115,623.30	84,378.70
	Refund	2.00		
10	Engineering and Geological Surveys and Reconstruction	33,000.00	30,000.00	3,000.00
11	Postwar Projects, Cooperation with U.S. Departments	135,000.00	114,284.74	37,952.01
	Refund	17,236.75		
12	Other Investigations, Surveys and Etc.	87,000.00	74,044.06	12,955.94
		<u>\$ 650,368.27</u>	<u>\$ 505,676.09</u>	<u>\$ 144,692.18</u>

VSC:bo

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION
 BALANCE OF PRIOR FUNDS RECOVERED BY OPINION OF
 ATTORNEY GENERAL AND UNDER SECTION 54-2709
 AS OF SEPTEMBER 30, 1950

Fund No.	Year	Appropriations for	Balance Available	Expended to September 30, 1950	Balance September 30, 1950
5	1939	Commissioner's Per Diem	\$ 1,757.00	N11	\$ 1,757.00
5	1939	Sponsor's Share of Dam Repairs	2,088.08	\$ 439.32	1,648.76
1	1941	Commissioner's Per Diem	395.00	N11	395.00
4	1941	Maintenance of Existing Dams, plus \$51.00 Refund .	53.86	N11	53.86
12	1941	Tri-State Water, Administration and Conference . .	8.61	N11	8.61
15	1941	Topographic Survey13	N11	.13
11	1945	Postwar Projects, Cooperation with U.S. Depts . . .	<u>14,813.72</u>	<u>329.06</u>	<u>14,484.66</u>
			<u>\$ 19,116.40</u>	<u>\$ 768.38</u>	<u>\$ 18,348.02</u>

VSB:bc

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION
 DEPOSITS IN THE BANK OF NORTH DAKOTA
 SEPTEMBER 30, 1950

Source of Deposits	Transit No.	Amount Deposited	Expended to September 30, 1950	Balance September 30, 1950
Collection on Yellowstone Pumping Irrigation District \$3,500.00 warrant. Tax collections to Jan. 31, 1950	501-118	\$1,299.69	Nil	\$1,299.69
Contributions for Groundwater Surveys:				
Fessenden		\$1,000.00		
Mountain		100.00		
Maddeck		750.00		
Lakota		1,000.00		
Rolla		750.00		
Devils Lake		7,500.00		
Aneta		1,000.00		
Litchville		1,000.00		
Wyndmere		1,000.00		
Portland		500.00		
Kindred		1,000.00		
Myle		250.00		
Neché		300.00		
St. John		750.00		
Streeter		1,000.00		
Mohall		1,000.00		
Richardton		750.00		
Portland		200.00		
Bowbells		1,000.00		
Michigan		580.00		
Winbelden		1,000.00		
Fairmount		1,000.00		
Hope		1,000.00		
Sharon	501-128	24,680.60	\$15,540.56	9,940.04
N. Dak. Water Development Book Fund	501-127	2,770.67	1.25	<u>2,769.42</u>
TOTAL OF ALL BANK OF NORTH DAKOTA DEPOSITS SEPT. 30, 1950				<u><u>\$13,209.15</u></u>

PAYROLL OF
NORTH DAKOTA STATE WATER CONSERVATION COMMISSION
SEPTEMBER 30, 1950

Name	Duties	Salary for September	Withhold- ing Tax	N.D. CASIS	Hosp. Ins.	Net Pay	Remarks
Walsh, J. J.	Sec'y-State Engineer	\$ 435.00	\$ 31.00		\$ 3.78	400.22	Increased March, 1950
Acker, Iver	Administrative Ass't	350.00	35.40	\$3.50	3.78	307.32	Started Jan. 1, 1949
Anderson, Albin	Engineer	275.00	24.60	2.75	3.78	243.87	Increased Feb. 1948
Berge, Einar	Technical Ass't	125.00		1.25	3.78	119.97	Increased January, 1950
Carman, Bertha	Typist	110.00	10.34	1.10		98.56	Worked part time in Sept.
Cooper, Vernon	Accountant	325.00	23.50	3.25	3.78	294.47	Increased March, 1950
Dodd, Harold	Engineer	300.00	19.90	3.00	3.78	273.32	Increased March, 1950
Hagert, E. S.	Engineer	325.00	31.80	3.25	1.52	388.43	Increased March, 1950
Lechner, Robert	Rodman	175.00	17.70	1.75	1.52	155.55	Increased April, 1950
LeGore, Robert	Engineer	225.00	25.50	2.25	1.52	195.73	Started June 15, 1950
Nichols, Don	Engineer, Ass't Sec'y	350.00	27.10	3.50	3.78	315.62	Increased March, 1950
Nordstrom, Franz	Foreman	250.00	12.70	2.50		234.80	Increased March, 1950
Olson, A. Peter	Engineer	41.67	4.88	.42		36.37	Started April 20, 1950
Orr, F. G.	Bookkeeper	300.00	11.60	3.00	3.78	281.62	Increased February, 1948
Peterson, Winifred	Stenographer	210.00	23.10	2.10	1.52	183.28	Increased April, 1950
Putz, Roy	Rodman	140.00	12.90	1.40	1.52	124.18	Started April 19, 1948
Rambur, Isabell	Stenographer	55.00	5.17	.55		49.28	Started Sept. 21, 1950
Sanford, Leonard	Foreman	400.00	36.40	4.00		359.60	Started April 1, 1950
Schmitcke, Otto	Foreman - Dam Repair	225.00		2.25		222.75	Started April 19, 1950
Sheldon, Marvin	Engineer	300.00	36.50	3.00	1.52	258.98	Increased March, 1950
Tibke, Gerald	Instrumentman	225.00	25.50	2.25	1.52	195.73	Increased May 1, 1950
Torvik, Duane	Engineer	275.00	24.60	2.75	3.78	243.87	Increased March, 1950
Erusger, Don	Rodman	23.33	2.15	.23		20.95	Quit September 5, 1950
Olson, Jerry	Rodman	56.00	5.16	.56		50.28	Quit September 12, 1950
Forney, Walter	Engineer	100.00	11.72	1.00		87.28	Quit September 12, 1950
Bauer, Herbert	Rodman	140.00	12.90	1.40		125.70	Started June 5, 1950
Dobrovolny, Richard	Instrumentman	80.00	8.76	.80		70.44	Quit September 12, 1950
Johnson, Loering	Recorder	50.00	4.70	.50		44.80	Quit September 10, 1950