

NORTH DAKOTA STATE WATER COMMISSION

REGISTER

ATTENDANCE AT State Water CommissionDATE October 13/14, 1981 PLACE Bismarck, N. Dak.

PROJECT NO. _____

Your Name	Your Address	Who do you Represent? (Or Occupation)
Joe Porten	Scranton	Southwest Water Coop
ALAN Austad	MANDAN	N.D. A. Rural Elec. Coops.
Fletcher Poling	Bismarck	Basin Electric Power Co-op
DAVE THOMPSON	BISMARCK	Prairie Public Radio/reporter
Jack D. Meloni	Bismarck	Great Plains Coal Gasification
Gene A. Davison	2 Veynes	South Water Coop
Leonard Jack Reeder		S. W. Coop
Joseph Stein Reeder		S. W. Coop
Lanni Mennety	Mott	ND Water Board
Ben Olien	Mott	City of Mott
Jim Bullock	Omaha	Chiles - Heider + Co Inc
Ed Wolff	OMAHA	Chiles Heider + Co Inc
Ed Knuth	Bismarck	ANG Coal Gas
Mark Johnson	Bismarck	Houston Engineering Inc
Terry O'Brien	Dickinson	ROOSEVELT COUNTY REG COUNCIL

NORTH DAKOTA STATE WATER COMMISSION
REGISTER

ATTENDANCE AT _____

DATE _____ PLACE _____

PROJECT NO. _____

Your Name	Your Address	Who do you Represent? (Or Occupation)
GORDON KELSO	3771-EL CANTO DR. SPRING VALLEY Ca.	BARTLETT WEST BOYLE ENGINEERING
Earl Kramer	Mo. St. N. Dak.	Water Worker
Chit Kramer	Halliday, N.D.	City Comm.
Martin Bergstedt	Halliday, N. Dak.	City Comm.
Edwin Morait	Halliday, N. D.	Keeta
Gordon Hoffner	HALLIDAY N. DAK	Pres HALLIDAY Civic Club
ROGER BURFENDOR	DICKINSON MINN	SURVEYS INC.
Lavern Zick	Bismarck, N. D.	TPS, Inc.
Luann Sells	Halliday, N. Dak.	City Comm. + Business Women Vice Chairman
August John Sells	Golden Valley, N.D.	Three Affiliated Tribes
James Spenshield	Dodge N.D.	Dunn County W. B. P.
Art Baumgartner	DICKINSON	MAYOR
Leo Lemmista	Halliday N. D.	President City Commission
Clay Corbett	B. S.	NACCO

NORTH DAKOTA STATE WATER COMMISSION

REGISTER

ATTENDANCE AT State Water Commission

DATE October 14/98 PLACE Bismarck, ND

PROJECT NO. _____

Your Name	Your Address	Who do you Represent? (Or Occupation)
Kaymond Krosling	Blanchard ND	Trail Co Water Users
Jim Eastgate	Bismarck	Burleigh Co WMD
Arlin Day	Moffitt	" " "
C. E. Mische	Bismarck	Bismarck Business
SA Neidoff	"	Burleigh Co WMD
Elmer Jones	Moffitt ND	Bural. Co. Commission
Jon R. Mill	Bismarck ND	Burleigh County Engineer
Tom Baker	" "	City Spector
Bus Leary	Bismarck N.D.	Mayor Bismarck
Jim Marsden	✓	N.D. Term Bureau
Charles E. Mumma	Bismarck, N.D.	USDA - SCS

MINUTES

North Dakota State Water Commission
Bismarck, North Dakota

October 13 and 14, 1981

The North Dakota State Water Commission held a two-day meeting on October 13 and 14, 1981, in the State Office Building Conference Room in Bismarck, North Dakota. Governor-Chairman, Allen I. Olson, called the meeting to order at 9:45 a.m. on October 13, 1981, and requested Secretary Vernon Fahy to call the roll and present the agenda.

MEMBERS PRESENT:

Allen I. Olson, Governor-Chairman
Kent Jones, Commissioner, Department of Agriculture, Bismarck
Alvin Kramer, Member from Minot
Florenz Bjornson, Member from West Fargo
Ray Hutton, Member from Oslo, Minnesota
Guy Larson, Member from Bismarck
Henry Schank, Member from Dickinson
Bernie Vculek, Member from Crete
Vernon Fahy, State Engineer and Secretary, North Dakota
State Water Commission, Bismarck

MEMBER ABSENT:

Garvin Jacobson, Member from Alexander

OTHERS PRESENT:

Approximately 40 persons interested in agenda items
State Water Commission staff members

The attendance register is on file in the State Water Commission offices (filed with official copy of minutes).

The proceedings of the meeting were recorded to assist in compilation of the minutes.

CONSIDERATION OF MINUTES
OF OCTOBER 1, 1981 MEETING -
APPROVED

The minutes of the October 1, 1981 meeting were briefly reviewed by Secretary Fahy. There were no corrections or additions to the minutes.

It was moved by Commissioner Schank, seconded by Commissioner Hutton, and unanimously carried, that the minutes of the October 1, 1981 meeting be approved as presented.

CONTINUED DISCUSSION OF
SOUTHWEST PIPELINE PROJECT
(SWC Project No. 1736)

Mr. Jim Bullock of Chiles, Heider & Co., Inc., Omaha, Nebraska, was introduced. The firm has been hired as the financial consultant for the Southwest Pipeline Project.

Mr. Bullock had distributed a report to the Commission members at their October 1, 1981 meeting and proceeded to review the information contained in that report.

Mr. Bruce McCollom and Mr. Donald Kukuk, representing the joint venture of Bartlett & West Consulting Engineers and Boyle Engineering Corporation, were introduced. At the Commission's October 1, 1981 meeting, copies of the Interim Report on Alternative Systems Study for the Southwest Pipeline Project were distributed to the Commission members. Mr. McCollom and Mr. Kukuk reviewed and updated the Commission members on the information contained in the report. Particular emphasis was placed on the alternative routes being considered.

Mr. McCollom indicated that after the Interim Report had been distributed to the Commission members, the City of Beach, by resolution of its City Council, indicated that it is not interested in participating in the Southwest Pipeline Project. By eliminating Beach from this study there is a reduction of 46.5 miles of main transmission line from the mileage shown in the Interim Report amounting to an estimated construction reduction of approximately \$6 million.

One of the alternative routes being considered provides for an Intake structure within the Fort Berthold Indian Reservation north of Halliday and Twin Buttes with a pipeline traversing the Reservation from the intake structure southerly towards Halliday. This alternative is designated as Alternate 3 in the Interim Report.

Governor Olson stated that it is absolutely essential that the State have complete authority and jurisdiction over all aspects of the Southwest Pipeline project, including such matters as amount of water to be appropriated, different beneficial uses of water to be served by the project, water rights and right-of-way. Thus, Governor Olson said that if the alternative located within the Reservation is the preferred route selected by the Commission, it would be necessary that the Three Affiliated Tribes relinquish any and all authority over the project to the State Water Commission including water rights and other jurisdictional or substantive issues relating to the project.

Secretary Fahy indicated that the legislation for this study mandates that a preliminary design of the project be submitted to the Legislative Council by October, 1982. In May, 1981,

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critical dates were established in order to complete the preliminary design. To begin the study, areas that had expressed an interest in receiving water from the project during the SAWS study were used. In addition, a survey was made by the Rural Water Office in early 1981 to confirm the SAWS data. A number of public meetings have since been held in the area. Interest has been shown in areas outside of the initial consideration area. Secretary Fahy said that based on the legislation authorizing the current phase of the Southwest Pipeline project, any community or area which expresses a sincere interest in securing water from the project must be studied for possible delivery of water. Although Secretary Fahy didn't consider this to be a serious constraint insofar as the final product is concerned, he said it does involve a great deal of additional work which must be completed in order to consider the total needs of the southwestern area.

Secretary Fahy stated that it will be necessary for the Commission to make the following decisions relative to the Southwest Pipeline project at this meeting: 1) the selection of a preferred route; 2) changes in service area; and 3) extent of the water supply system. He stressed the selection of a preferred route as a very important decision to be made at this meeting because the engineer needs to obtain additional field data yet this fall in order to complete the engineering work over the next few months.

Commissioner Larson expressed his concern of establishing the complete service area before the Commission makes its decision. He also stated that the communities and areas in the southwestern portion of the state should be given a deadline to express their interest in obtaining water from the delivery system.

Secretary Fahy stated that one of the ways communities and areas within the area are being given an opportunity to express their interest in obtaining water from the delivery system is through the agreement of intent which requires a good intention fee.

Secretary Fahy then read a memorandum for the Commission's consideration which provided the recommendations of the State Engineer for the selection of an alternative route and changing the service area and extent of the water supply system for the Southwest Pipeline project. He explained that these recommendations were made based on a review of the Interim Report - Alternative Systems Study for the project, staff participation in five public meetings throughout the southwest area where the alternative routes were explained and public input received. In addition, the report was reviewed at two meetings of the Southwest Pipeline Advisory Committee and the October 1, 1981 meeting of the Commission. The memorandum is attached hereto as APPENDIX "A". Secretary Fahy indicated that these recommendations do not address all of the decisions that will be required of the Commission. He also said that not only have the initial costs been considered in these recommendations but also to look ahead and try to resolve the future needs of the area in the most economical way possible and to minimize future complications.

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Mr. Gene Davison, Chairman of the Southwest Water Cooperative, distributed a copy of a letter dated October 12, 1981 relative to a meeting held in Hettinger on October 8 (attached hereto as APPENDIX "B"). Mr. Davison said that the Cooperative consists of the major municipalities in the four counties of Bowman, Slope, Hettinger and Adams, with the exception of Rhame and Marmarth. Two South Dakota cities are also members of the Cooperative. The Southwest Water Cooperative has gone on record in support of proposed Alternate A with a single treatment plant located nearest the source.

Mr. Davison indicated that at the Cooperative's October 8, 1981 meeting there were a number of South Dakota representatives present and were very much interested in the Southwest Pipeline project. The Cooperative has requested that discussions be held with South Dakota relative to this project.

Governor Olson replied that where possible state and local efforts would be made between the two states for possible participation in the project by the South Dakota cities who are Southwest Water Cooperative members.

Secretary Fahy also stated that he had visited briefly with state agencies relative to this concern and his observation is that there would be no problem in serving areas across the state line; however, if we are to utilize funds from the North Dakota Water Development Fund we would also then expect the State of South Dakota to likewise utilize funds from its Water Development Fund to pay the complete cost of service to South Dakota.

Mr. Davison reported that the Southwest Advisory Committee met on October 13, 1981 and it was a unanimous decision of that Committee to support the selection of Alternate A, including primary and secondary lines as a part of this project. The Committee also favors Alternate 1.

Commissioner Schank reiterated that in the meetings of the Southwest Water Cooperative and the Southwest Advisory Committee it was stressed that the primary and secondary lines are very important and should be included as part of the project.

Mayor Art Baumgartner from Dickinson expressed his appreciation that the project has moved along this far, but expressed concern relative to the size of the pipeline when considering population projections up to the year 2000. He encouraged communities and areas who are interested in receiving water from the delivery system to indicate this interest as soon as possible.

Mr. Herb Urlacher, Chairman for the West River Joint Board indicated he feels the intent for useage has been in the 14-county area for a long time and stated the cities are willing to pay the special intention fee required.

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Mr. Clay Gerboth, Chief Geologist for the Western Division of the North American Coal Corporation, presented a statement attached hereto as APPENDIX "C".

Mr. Leo Lesmeister from Halliday expressed concern about the possibility that a savings could be realized by obtaining water north of Halliday, not only on the initial installation of the system but also regarding the operation of it in the future. Halliday favors the installation of a treatment plant near the intake system because the smaller cities cannot afford to build their own treatment plants. Mr. Lesmeister indicated that he had met with representatives of Twin Buttes and the city is interested in obtaining water from the project in the near future. He requested that the State Water Commission study the possibility of a secondary line to that city. He said the city has expressed a willingness to assist in any way possible. Mr. Lesmeister expressed appreciation to those individuals and agencies who are responsible in getting the project where it is today.

Mr. August Little Soldier, representing the Three Affiliated Tribes, stated that relative to jurisdictional problems and legal questions, the Tribe is willing to work with the State Water Commission. He stated that he did not feel there would be any problems in obtaining the necessary easements across the Indian Reservation. He felt that the Southwest Pipeline project would be of benefit to the city of Twin Buttes.

Mr. Joe Steier, representing the Southwest Rural Water Cooperative, emphasized very strongly that there have been many attempts in the past to deliver water to the southwest portion of the state, but feels that the Southwest Pipeline project is the most sincere and combined effort ever made and urged the Governor's and the State Water Commission's continued support for completion of the project and water delivery to this area.

Mayor Baumgartner commented that the long-term needs of the area should be looked at, and the first steps taken to establish a claim for the water.

The Commission recessed their meeting at 11:30 a.m.; meeting reconvened at 1:00 p.m.

CONTINUED DISCUSSION OF
SOUTHWEST PIPELINE PROJECT
(SWC Project No. 1736)

It was moved by Commissioner Schank, seconded by Commissioner Vculek, and unanimously carried, that the State Water Commission select Route 1A

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outlined in the Interim Report as the preferred pipeline route for the Southwest Pipeline project for engineering and design purposes, but that State Water Commission staff shall continue to discuss Route 3A as outlined in the Interim Report with the appropriate tribal officials for possible future consideration.

In regard to continued discussion with tribal officials concerning jurisdictional and other matters, Governor Olson requested an update at the Commission's December meeting. If the matters are not resolved by this time, the Commission will then establish a deadline date.

Secretary Fahy reported that the possibility for joint use of American Natural Gas-Basin Electric's intake structure in Renner Bay north of Beulah has been discussed. The Nokota Company has also expressed an interest in exploring the possibility of joint construction of a new intake structure in Renner Bay near the ANG-Basin intake and possible joint use of a pipeline from Renner Bay to Halliday. A preliminary engineering and soils study would be required to develop a cost estimate for a new intake structure and the costs would be divided between the state and the Nokota Company in an appropriate manner. Secretary Fahy indicated that there are funds available within the Southwest Pipeline project budget to cover the state's share of the study costs if it is the Commission's wishes to proceed with the study. It was the recommendation of the State Engineer that the Commission authorize the joint study with the Nokota Company to determine the intake structure cost, along with the cost of an alternative pipeline capacity for Nokota's needs. The alternative pipeline capacity study would be paid by Nokota Company. When a cost has been determined it can then be compared with the cost of sharing the ANG-Basin Electric structure and a determination made as to which intake should be selected.

It was moved by Commissioner Jones, seconded by Commissioner Schank, and unanimously carried, that the State Water Commission authorize a joint study by the State Water Commission and the Nokota Company to determine costs and develop preliminary designs for a new intake structure in Renner Bay and possible joint use of a pipeline from Renner Bay to Halliday.

Mike Dwyer, Assistant Attorney General for the State Water Commission, advised the Commission that their authorization of the study would be implemented by virtue of a contract between the Nokota Company and the consulting engineers for the Southwest Pipeline project, which will be approved by the State Engineer. Governor Olson requested that the Commission be given an opportunity to review the agreement with Nokota Company prior to final approval by the State Engineer.

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It was recommended by the State Engineer that the study continue to include the secondary transmission system in the engineering study.

It was moved by Commissioner Schank, seconded by Commissioner Jones, and unanimously carried, that the engineering study for the Southwest Pipeline project continue to include the secondary transmission system as outlined in the Interim Report for the preferred route that has been selected.

Secretary Fahy explained the procedure that has been developed for changes in the service area, and it was the unanimous consensus of the Commission members that this procedure is satisfactory.

The resolution received from the Beach City Council that the city is not interested in participating in the Southwest Pipeline Plan was reviewed.

It was moved by Commissioner Schank, seconded by Commissioner Larson, and unanimously carried, that the request from the City of Beach be accepted and the city of Beach be deleted from the study area.

CONSIDERATION OF REQUEST BY
TRAILL COUNTY DRAIN BOARD
FOR POSSIBLE SWC COST SHARING
IN TRAILL COUNTY DRAIN NO. 52
(SWC Project No. 1743)

Dave Sprynczynatyk, Director of Engineering for the State Water Commission, stated that a request was received from the Traill County Drain Board in May, 1981, requesting cost participation by the State Water

Commission in the construction of Traill County Drain No. 52, also known as the Northeast Traill County Water Control project. The total estimated cost of the project is \$494,580. Under present State Water Commission cost participation criteria, \$298,930 would be eligible for cost participation. Forty percent of the eligible items would amount to \$119,572.

Mr. Sprynczynatyk stated that the preliminary construction plans and the cost estimate was submitted by the consulting engineers. The plans have been reviewed by the Commission staff and have been found to be acceptable. An application to drain was received in July, 1981 and was declared of statewide significance by the State Engineer. A public hearing was held in the area on the application to drain and the application was approved. A permit has been approved by the State Engineer.

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The proposed drain has a watershed of approximately 20 square miles and will be approximately 9 miles in length. The drain outlets into Buffalo Coulee, a tributary to the Red River. The purpose of the project is to protect and increase agricultural production within the drainage area. The design engineers have indicated that the drain will provide protection approaching a 25-year summer rainfall event. The proposed improvements will contain the flows that were experienced during a 1979 summer rainfall which caused crop loss and damages exceeding one million dollars.

It was the recommendation of the State Engineer that the Commission authorize participation in this project and that participation be limited to forty percent of eligible costs. Since the Water Commission did establish a policy to limit funding for a single project to \$100,000 and since forty percent of the eligible costs amounts to \$119,572, it is recommended that the Commission participate in forty percent of actual costs not to exceed \$100,000.

The Commission members entered into a discussion about drainage, and it was expressed that a policy should be established requiring control structures be installed on new drains constructed in the Red River Valley.

It was decided by the Commission members to defer action on this request until the following day when representatives from Traill County would appear to express their views on the project.

**BRIEFING ON OGALLALA
AQUIFER STUDY
(SWC Project No. 1706)**

Secretary Fahy updated the Commission members on the status of the Ogallala Aquifer study noting that several years ago \$6 million was appropriated by the Federal Congress to study the ways and means of revitalizing this aquifer which covers a seven-state area including a portion of South Dakota. He stated that he has been attending the Council meetings as an observer as North Dakota has a very large stake at what happens downstream with the waters of the Missouri River.

The Corps of Engineers has now completed its original study of the diversions that might be necessary to sustain the viability of the Ogallala Aquifer which it has been said represents 21 percent of the irrigated agriculture of the United States. The Corps has selected four possible diversion points: 1) Fort Randall Dam; 2) St. Charles, Missouri; 3) Arkansas-Red-White River system; and 4) Fort Peck, although this diversion point was abandoned because of topographic and cost problems. The Corps of Engineers has submitted its final draft report.

Secretary Fahy indicated that the original idea of the study was to recharge the Ogallala Aquifer. As the study progressed, this idea was not true as there is no attempt to put the

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water underground. The water will be surface stored and will then be delivered to those critical areas. In looking ahead to the year 2000, it is visualized that about six million acres will be going out of production so they are aiming at a system that would sustain this out-of-production acreage. In reality now that the studies are complete, the Ogallala Aquifer will actually show an increase in irrigation principally due to Nebraska, which has 400 feet of water-bearing sands and gravel in the aquifer, and will increase the irrigated agriculture enough to make up for the total loss of the other states in the system.

Secretary Fahy stated that at the last Council meeting, the Governor of Texas responded to a question saying "that is not their water upstream. We will have that declared surplus by the Congress and we will have Congress appropriate that water to the Ogallala Aquifer system." In response to the Governor's statement, Secretary Fahy commented that this is not in the national interest to make up six million acres of lost irrigation in the Ogallala Aquifer system as there are other areas that could be put under water more cheaply with less energy costs and much closer to the source than what is being planned. He also noted that not all member states agree with the concept of the study.

The engineering study will be completed by May 1, 1982 and the recommendations of the Council must be submitted to the Department of Commerce and Congress by July 1, 1982. Secretary Fahy indicated that he will keep the Commission closely informed as the study progresses.

RICHLAND COUNTY DRAIN
NO. 2C
(SWC Project No. 1176)

Dave Sprynczynatyk stated that the Commission approved funds in the amount of \$100,000 for the construction of Richland County Drain No. 2C at their

August 12, 1981 meeting. Since the time that these funds were approved, an assessment vote was taken in the area, and the vote for the project failed.

It was the recommendation of the State Engineer that the Commission rescind the funds that had been approved for Richland County Drain No. 2C.

It was moved by Commissioner Larson, seconded by Commissioner Hutton, and unanimously carried, that the funds approved for the Richland County Drain No. 2C in the amount of \$100,000 be rescinded and restored to the Contract Fund.

The meeting was recessed at 2:30 p.m.; the meeting reconvened at 9:30 a.m. on October 14, 1981.

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PRESENTATION BY BURLEIGH
COUNTY REPRESENTATIVES ON
APPLE CREEK FLOOD CONTROL
PROPOSAL
(SWC Project No. 1728)

Mr. Jim Eastgate, Secretary for the Burleigh County Water Resource District, introduced the following: Milo W. Hoisveen, Consultant; Elmer Agnew, Bert Neldeffer and Rubin Day, Burleigh County Water Resource District; John Mel, County Engineer; Bus Leary, Mayor of Bismarck; Tom Baker, City Auditor; Chuck Mitchell, Chamber of Commerce Water Resource Committee; and Laurle McMerty, North Dakota Water Users Association.

Mr. Eastgate presented for the Commission's consideration a proposal to cost share in the construction of a pilot demonstration structure for flood reduction purposes on the upper reaches of the east branch of Apple Creek. The county is considering using this type of an approach as the first phase towards a total flood control program for Apple Creek which could extend for a period of up to 20 years. The estimated cost for this phase of the project is \$170,000. Mr. Eastgate stated that it is the opinion of the Board that the excess floodwaters should be retained and put to beneficial use as close as possible to where the water originates. Therefore, a reconnaissance study was made of the area to see what could be done in the way of flood retention for future uses. The State Water Commission has participated in many of the preliminary efforts and developed a rather comprehensive report. It has been the policy of the State Water Commission to recommend that water projects be developed on the basis of comprehensive planning, and Mr. Eastgate said that he felt this project does fit into that scheme of planning.

Mr. Milo Hoisveen, consultant for the study, made a technical presentation involving the specifics of the project which included figures on storage, reduction of flows, costs and benefits.

Mr. John Mel, County Engineer, expressed his support of the overall concept of a relatively small-scale project including the pilot demonstration and a dry-dam concept. He made reference to this type of drainage practice in the eastern portion of the state, and felt that the concept of trying to create some storage areas to slow the runoff rate does have merit worthy of consideration.

Mr. Elmer Agnew, Burleigh County Water Resource District, indicated that he has been involved with this project since its beginning and urged favorable consideration by the State Water Commission for cost sharing in the project.

Mr. Chuck Mitchell, appearing on behalf of the Water Resource Committee of the Chamber of Commerce, stated that the Committee has recommended that this project be presented to the Commission for cost participation, and urged favorable consideration.

Mayor Bus Leary expressed favorable support of the project as a test, and indicated that the city of Bismarck fully supports the project.

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Mr. Tom Baker, City Auditor, reiterated that the city of Bismarck does support the project, particularly the pilot aspects, for better flood control in Burleigh County.

Mr. Laurie McMerty, appearing on behalf of the Souris River Flood Control Committee, stated that it is the position of that Committee that there is a direct relationship in what is being discussed for flood control purposes in the Souris River Valley and the proposal for research that is being discussed by the Burleigh County Water Resource District. He urged the Commission's favorable consideration of the project.

The costs and the benefits of the project were discussed. Dave Sprynczynatyk indicated that the summary states: "Some people feel that a benefit/cost ratio study is not a fair way to analyze a project's feasibility especially in rural areas. There are always benefits that may not be foreseen for one reason or another. This may be true if development continues along Apple Creek. Flood flow reduction upstream may enable downstream flows to be controlled easier by dikes or some other methods, however, it would be better to prevent flood damages by controlling this development along Apple Creek. In this way, floods will not cause as much damage since the land would be used in ways that would sustain little damage if flooded. Burleigh County Water Management Board will have to determine whether this project can be justified. They must decide if it is beneficial to spend \$170,000 on a project that will return only a little more than one-third of the costs of the benefits."

It was the consensus of the Commission members that since they had not had an opportunity to review the report, that action be tabled at this meeting and placed on the agenda for the Commission's December meeting.

**PRESENTATION AND CONSIDERATION
OF REQUEST FOR COST SHARING
IN BURLEIGH COUNTY WATER
MANAGEMENT RESEARCH PROJECT
(SWC Project No. 1551)**

Mr. Jim Eastgate presented a request for the Commission's consideration in cost sharing in a research project involving water management practices on shallow tilled soils. The total estimated cost of the project is \$26,000, and the county has requested that the Commission consider cost sharing in one-half of those costs. Mr. Eastgate explained that most of the acreage in the Apple Creek unit is classified as shallow till soils and this classification is not recognized in the Bureau of Reclamation's criteria as irrigable soils.

Mr. Eastgate gave the background history of the project indicating that in the fall of 1976 a soils physicist at NDSU forwarded a copy of a report that had been printed in the Canadian Soils Science on research done on shallow till soils at Lethbridge, Alberta, which is the largest joint federal-state experiment station in Canada.

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This Canadian research was followed up and two tours were made of the area at Lethbridge which included representatives from the Soils Department at NDSU, Bureau of Reclamation at Bismarck and Billings, and Mr. Eastgate.

Approximately four years ago funding was approved to embark on a similar project through joint efforts of Burleigh County and the ARS in Mandan on water management on shallow till soils in the Apple Creek unit within 15 miles of Bismarck. Mr. Eastgate stated that of the eight possible sites looked at, two were selected that will be implemented for the research project. Burleigh County has already invested approximately \$21,000 in research equipment and expects to have approximately \$5,000 more invested in acquiring long-term leases on the two sites. He said that tests are being run this year and expect to get the field work underway next year.

Because of the state-wide significance this research project will have, Mr. Eastgate requested favorable consideration by the Commission for cost sharing. He did also note that another tour to the Lethbridge area is anticipated in August of 1982 and the Bureau's Assistant Secretary for Land and Water and the Commissioner of the Interior will be invited to participate in the tour.

Secretary Fahy stated that sometime ago a request was received from the Commissioner of the Bureau of Reclamation to indicate those areas in the federal rules and regulations in which the state has disagreement. He said that a number of items were listed, but one of those was the Bureau's rules and regulations for classifying soils for irrigation. In this day and age of sprinkler irrigation, the Bureau's rules and regulations are not comprehensive enough to recognize the special conditions that we have in North Dakota. In Lethbridge, these kinds of soils have been irrigated very successfully for a number of years.

The Bureau has designated a representative to go to Lethbridge and then to meet with state representatives to try and develop new regulations which the Bureau could employ. He stated that this study has been long overdue and must be done if the Federal Government is going to be involved at some time in irrigating areas in North Dakota which at present the Bureau considers to be non-irrigable lands in terms of their standards. Private individuals are irrigating successfully these types of soils now by sprinkler in North Dakota.

Secretary Fahy stated that he has briefly discussed this with the Commissioner of Reclamation, and the Commissioner has indicated that there is merit in the request.

It was recommended by the State Engineer that this is a long overdue study and that the Commission should become involved in the cost sharing request.

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Mr. Laurie McMerty, representing the North Dakota Irrigation Association, endorsed the comments made by the State Engineer to support this most needed study outlined by Mr. Eastgate.

Mr. Jim Marsden, North Dakota Farm Bureau, concurred with Mr. McMerty's and the State Engineer's comments and noted, too, that this study is long overdue and would hope that the Commission could see fit to favorably participate in the study.

It was the consensus of the Commission members that action on the request be deferred at this meeting and that the item be placed on the December agenda of the Commission.

CONTINUED DISCUSSION OF REQUEST
FOR SWC COST SHARING FOR TRAILL
COUNTY DRAIN NO. 52
(SWC Project No. 1743)

Dave Sprynczynatyk briefly reviewed the project and the comments that were made at the meeting held the day before.

Mr. Raymond Kraling, Traill County Water Resource Board, was introduced. Mr. Kraling explained the project from the local standpoint and stated that at the public hearing 76 percent of the people voting were in favor of the project.

Commissioner Hutton asked Mr. Kraling if he felt there would be opposition from the county if a control structure would be required on the drain. Mr. Kraling replied that the area is so flat that at times when there is a downstream impact caused by the project, the control structure would be flooded; although he felt that the county would not object to a control structure. Mr. Kraling indicated that the bids have been let for the project and the contractor has indicated weather permitting the project could be completed this fall.

Secretary Fahy stated concerning the suggestion that the State Water Commission establish a policy requiring control structures be installed on all drainage projects within the Red River Valley, that when applications for drainage are reviewed, this is one of the items that is considered. Secretary Fahy stated that if a control structure will benefit in the retention of waters, it is required. He stated that in this particular project, the project engineer was instructed to consider the matter of storage of water and the consulting engineer recommended, concurred by Commission staff, that a control structure on this project was not feasible.

Mr. Dwyer explained that a bill for water management district re-organization was introduced in the last session of the legislature. Although the entire bill did not pass, the part of the bill which did pass requires an overall master plan for a particular water activity in the entire water resource district before cost participation by the State Water Commission will be considered.

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Commissioner Bjornson expressed her concern that the Red River Valley should be put on alert that the Commission wants to take a look at a more comprehensive picture and with more sensitivity to what happens as we go toward Canada with the water from the Red River Valley and for this reason she is not in favor of cost participating in the project at this time.

Commissioner Hutton stated that he is not against drainage, but feels the Commission needs to have control on the drainage system.

It was moved by Commissioner Kramer and seconded by Commissioner Larson that the State Water Commission approve 40 percent cost participation of the eligible costs in the construction of the Traill County Drain No. 52, in an amount not to exceed \$100,000. The motion is contingent upon the availability of funds.

The following roll call vote was taken:

Commissioner Larson	-	aye
Commissioner Kramer	-	aye
Commissioner Bjornson	-	nay
Commissioner Schank	-	aye
Commissioner Hutton	-	nay
Commissioner Vculek	-	nay
Governor Olson	-	aye

The vote was 4 aye; 3 nay. The Chairman declared the motion passed.

Mr. Laurie McMerty, representing the Water Resource Districts Association, expressed comment that the Association shares the Commission's concern regarding control structures on drainage projects. He indicated that the Association has adopted a resolution urging the State Water Commission that where it is possible and practical that control structures be included in the drainage structure. He said that the Association will inform the county water resource districts of the need to consider control structures and must be a part of any proposal that is submitted in the future to the Commission for cost sharing.

The possibility of implementing legislation prior to July 1, 1985 which requires that a water resource district have an overall master plan for a particular water activity before the Commission will consider cost participation was discussed. Mike Dwyer stated that the Contract Fund provides that the Commission may expend the money as it deems appropriate. Thus, the Commission can require reasonable conditions as they deem appropriate, and these conditions can be imposed at any time.

October 13 and 14, 1981

Governor Olson instructed the staff to review this matter and forward copies of the statutes to the Commission members prior to the next meeting.

DISCUSSION OF COST
SHARING GUIDELINES

Secretary Fahy indicated that an item which needs to be addressed by the Commission in the development of a cost sharing policy is whether or not the services of outside consultants will be included as an eligible cost item for future projects. At the present time they are not considered eligible costs, a policy that was formulated years ago in order to spread state participation dollars farther among the local entities.

It was the consensus of the Commission members that the staff prepare a draft of cost sharing guidelines for the Commission's consideration at the December, 1981 meeting.

PUBLIC HEARING FOR
SHEYENNE RIVER DIVERSION
STUDY
(SWC Project No. 1344)

Mr. Sprynczynatyk stated that tentative arrangements are being made to schedule that hearing about the second week of January, 1982.

Dave Sprynczynatyk indicated that at an earlier meeting of the Commission the matter was discussed, and it was agreed to, that a public hearing would be held in the Sheyenne River Diversion

UPDATE ON STATE COMPREHENSIVE
WATER PLAN
(SWC Project No. 322)

the State Water Comprehensive Plan for the Commission's review.

Sue Nicola, Information Specialist for the Planning Division of the State Water Commission, distributed copies of all updated information pertaining to

It was moved by Commissioner Kramer, seconded by Commissioner Bjornson, and unanimously carried, that the meeting adjourn at 11:50 a.m.


Allen I. Olson
Governor-Chairman

ATTEST


Vernon Fahy
State Engineer and Secretary

October 13 and 14, 1981



NORTH DAKOTA

STATE WATER COMMISSION

**900 east boulevard
701-224-2750**

**bismarck 58505
north dakota**

MEMO TO: State Water Commission
 FROM: Vern Fahy, State Engineer
 RE: Selection of Preferred Route - Southwest Pipeline Project
 SWC Project File #1736
 DATE: October 12, 1981

Introduction

This is to provide my recommendations for selection of an alternative route, changing in service area and the extent of the water supply system for the Southwest Pipeline Project. My recommendations are based on a review of the Interim Report - Alternative Systems Study for the Southwest Pipeline Project, and staff participation in five public meetings throughout the southwest area where the alternative routes were explained and public input received. In addition, the report has been reviewed at two meetings of the Southwest Pipeline Advisory Committee and at the October 1 meeting of the State Water Commission in Dickinson.

Comments and recommendations on these decisions have been received from the South West Water Cooperative, the City of Richardton, and most importantly, the Southwest Pipeline Advisory Committee.

Recommendations

1. Selection of Pipeline Route

Based on my review of the Interim Report and the recommendations and comments received from the interested entities, it is recommended that Route 1A be selected as the preferred pipeline route. There are several reasons supporting this recommendation. First, the cities of Beulah, Dodge, and Golden Valley were not included as potential customers in the Interim Report and service to those cities was not included in the cost estimates. Beulah, Golden Valley and Dodge have now expressed an interest in the pipeline and Route 1 will minimize the pipeline cost to serve those communities. Second, it is absolutely essential that the State Water Commission have sole and complete authority over the Southwest Pipeline Project. There are several jurisdictional and sovereign questions relating to the Indian Reservations which are not specifically answered or defined. Unless these extremely complex issues can be resolved and defined, Alternate Route 1 provides greater certainty for state authority and jurisdiction. Third, Route 1 has been recommended by the South West Water Cooperative, the city of Richardton, and the Southwest Pipeline

Advisory Committee. Finally, we are currently in the process of discussing joint use of the Southwest Pipeline Project with potential energy industrial users. Such joint use could provide substantial savings to the total cost of the Southwest Pipeline Project, both in terms of construction costs and operation costs. For various reasons, including the location of the existing ANG intake at Renner Bay, Alternative Route 1 provides the greatest potential for future joint use of the Southwest Pipeline Project by industrial users.

The distribution portion of the Southwest Pipeline Project, Alternative Route A, has been recommended by the Southwest Water Cooperative, which is the primary customer for that area. Since Route A is approximately \$1.3 million less than Route C, it is the preferred Route.

For all of these reasons, it is my recommendation that Route 1A is the most preferred Route, and provides the greatest potential to be the most economical alternative.

2. Extent of Water Supply System

I also recommend that the pipeline system include secondary transmission mains which will serve nearly all the cities within the service area. The criteria used in the Interim Report defines secondary mains as those mains having hydraulic capacities of between 100 and 500 gallons per minute. There are at least 10 cities within the service area that would be served by the secondary mains. I believe that the inclusion of secondary mains into the pipeline plan is the most cost effective method of providing water to those cities.

In addition, by resolution of its City Council, the city of Beach has indicated that it is not interested in participating in the Southwest Pipeline Plan. By eliminating Beach there is a reduction of 46.5 miles of main transmission line from the mileage shown in the Interim Report amounting to a cost reduction of approximately \$6 million. Those miles and dollars are approximately equal to the miles and dollars required to construct the secondary mains for Route 1A. If approved by the State Water Commission, the cost of secondary transmission mains will be separated from the other costs, to allow the State Water Commission, and eventually the Legislature, to make a separate decision concerning this issue.

3. Changes in Service Area

Based on the legislation authorizing the current phase of the Southwest Pipeline Project, it is our position that any community or area which expresses a sincere interest in securing water from the Southwest Pipeline Project must be studied for possible delivery of water. Whether such study be included as part of the Southwest Pipeline Project, or a separate delivery system, we believe that in order to satisfy the legislative intent of SB-2338, delivery of water to areas of interest must be considered.

MEMO TO: State Water Commission
October 12, 1981
Page 3

It should be noted that the original service area was developed on the basis of interest expressed during the survey conducted early in 1981.

Intake Structure Location

As previously reported to you, we have been negotiating with American Natural Gas - Basin Electric for joint use of their intake facility in Renner Bay north of Beulah. Our latest counter offer to ANG-Basin was \$4,950,000 for the withdrawal of up to 24,000 gpm which includes 12,000 gpm of industrial water. ANG's formal response is attached.

We have also had discussions with the Nakota Company exploring possible joint construction of a new intake structure in Renner Bay near the ANG-Basin intake, and possible joint use of a pipeline from Renner Bay to Halliday. A preliminary engineering and soils study will be required to develop a cost estimate for a new intake. Costs of the study are estimated to be between \$20 and \$25 thousand to be divided between the state and the Nakota Company in an appropriate manner. There are funds available within the Southwest Pipeline budget to cover the state's share of the study costs.

It is suggested that the commission authorize the joint study with the Nakota Company to determine the intake structure cost. When a cost has been determined it can be compared with the cost of sharing the ANG-Basin structure and a determination made as to which intake should be selected.

Future Decisions Required

As previously indicated, several future decisions will be required from the State Water Commission, including such things as selection of intake structure, degree and location of water treatment, should industrial water capacity be considered, right-of-way acquisition policies, and selection of operations entity.

Sincerely,

Vern Fahy
Vern Fahy
State Engineer

VF:MD:ps



CITY OF RICHARDTON

RICHARDTON, NORTH DAKOTA 58652
October 7, 1981
Mr. Bob Dorothy, Executive Secretary
North Dakota State Water Commission
Bismarck, North Dakota 58505

STATE WATER COMMISSION		
REFER TO		
RED. H. P. U. D. A. S. O. H.		
For Your Inf.		
Draft A Reply		
Respond Directly		
Comments?		
Let's Discuss		
Return to State Eng.		
File		

Mr. Dorothy,

After the Public Meeting on the Southwest Water Pipe Line, we would favor Route 1a over Route 3A, because a possible problem with Water Rights and right - of - way over Indian lands which seems to never have a solution.

The extra 16 miles of pipe line can bring Water to the Cities of Beulah, Zap, Golden Valley and Dodge.

The pumping station horsepower used are not to different 1A or 3A. Bringing in the extra cities should off set the additional 250 horsepower cost. Route 1A and 3A have about the same gallon capacity.

Section D:

Cost on different Route 1A against 3A is about 6 million dollars, but it will bring in the possible service to four additional cities, and the avoidance of possible litigations on water rights, land crossing rights could last for years and cost more than the additional cost of Route 1A..

Section E:

Basic annual operation and maintenance cost: with the additional four cities will be some lower on per unit cost. Again this can not be avoided due to the same problem in Section D, which may never be resolved. Cost per 1,000 gallons seems to be static.

Section F:

Water Treatment and Plant Location.

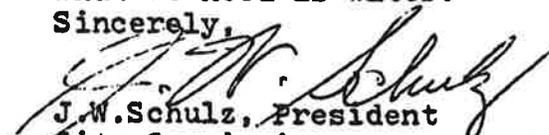
We will be in favor of the multiple plants as outlined in Alternative 1A. Water cost as to single plant is a little cheaper, but the multiple plants have the advantage over single plant system. The Dickinson plant is already there, this could be utilized. Richardton could handle Hebron, Taylor and Gladstone. If a problem does develop in the water system with multiple plant operation, it would not effect the whole system and one plant may help out the other.

Section G:

Basic life cycle annual system cost, 1A against 3A: 1A is \$5000,000 total annual life cycle cost higher than 3A. Due to same problem in Section D, this could be the lowest cost system on long-term basis.

We would not like a problem existing at the head of the water intake system. What we need is water.

Sincerely,


J.W. Schulz, President
City Commission
City of Richardton, ND



North Dakota State
State Capitol
Bismarck, North Dakota 58501

STATE WATER COMMISSION REFER TO	
<i>Rev DKS</i>	
For Your Inf.	Killdeer, North Dakota 3 October, 1981
Draft A Reply	
Respond Directly	
Comments?	
Let's Discuss	
Return to State Eng. Water Commission	

The Dunn County Water Resource District Board wishes to make the following recommendation in regards to the Pipe Line Project for Southwest North Dakota.

It is the wish of the Board that the Pipe Line follow the proposed route of the West River Diversion Project. The West River Diversion Pipeline project would serve the entire Southwest Area.

We urge the Commission to consider the West River Diversion approach to alleviate the water needs for Southwest North Dakota.

Thank you.

Allen R. Temanson

Allen R. Temanson, Secretary
Dunn County Water Resource District
Box 508
Killdeer, North Dakota 58640

< (PLEASE FORWARD TO FROM: J.W. PARKER
MR. DAVE SPRYNCEZYNYK)

ANG COAL GASIFICATION COMPANY
MEMBER OF THE AMERICAN NATURAL RESOURCES SYSTEM
ONE WOODWARD AVENUE, DETROIT, MICHIGAN 48225



NOEL A. MERMER
EXECUTIVE VICE PRESIDENT

October 5, 1981

Mr. Vernon Fahy
Secretary & State Engineer
North Dakota State Water Commission
900 East Boulevard
Bismarck, North Dakota 58505

Dear Mr. Fahy:

As a follow-up to our discussion on September 29, 1981, regarding our cost sharing proposal for the use by the State of North Dakota of the water intake, tunnel and pump shaft (Facilities) that were built in conjunction with the Basin Electric and Great Plains projects, the following is submitted pursuant to your request.

Our proposal is that the capital cost share portion of the Facilities be based on the tested capacity of the Facilities which is 54,000 gallons per minute. The capacity cost to which the cost share percentage would be applied is that number which is generated in accordance with our agreement with Basin Electric, and while it is subject to our audit, it is estimated at this time to be in the 40+ million dollar range.

Using the above two assumptions, if the State nominated 12,000 GPM of capacity, our proposal would result in a 22.2% capital cost share of 40+ million dollars and equal \$9.0 million as the capacity contribution portion to be paid by the State of North Dakota. These numbers are developed by dividing the North Dakota nomination of 12,000 GPM by the tested capacity of the Facilities of 54,000 GPM times the Facility capital cost of \$40 million.

If at a later date the State of North Dakota wanted to increase the nomination to provide for industrial use, we would allow them to do so for an additional increment of capital cost share that would be developed by dividing the new nomination by the tested capacity and multiplied by the original cost. We feel that we would be unable to provide for total nominations in excess of 24,000 GPM as that portion to be used by the State of North Dakota. This number when added to the usage anticipated by Basin Electric and Great Plains totals some 51,000 GPM or 95% of the tested capacity.

Mr. Vernon Fahy
October 5, 1981
Page 2

The State of North Dakota would be required to provide the incremental capital required to change out the intake screens that would be required to comply with maximum flow rate velocity as presently dictated by existing environmental permits. Also, the State of North Dakota would be required to install their own pumps in the pump shaft that would be made available by this arrangement and share in the annual operating cost of the Facilities on an actual annual water used basis.

We do want to make the Facilities available to the State of North Dakota for their use and absent information relative to the cost of other alternatives available to the State of North Dakota, we have predicated this proposal on a tested capacity basis of our Facilities. After you have priced out your other alternatives, we would like to get together to see if there is a rational basis for us to meet your lowest cost and most environmentally acceptable alternative.

If there are clarifications or other information required in connection with this proposal, please do not hesitate to give me a call.

Sincerely yours,

Nell F. Murrell

cc: Messrs. R. E. Boulanger
A. E. Browning
K. E. Janssen
W. J. Lundberg
J. W. Parker ✓

SOUTH WEST WATER COOPERATIVE

"Serving the counties of
Adams, Bowman, Hettinger and Slope

Louis Witte, Regent
Darrell Papka, Hettinger
Arnold Rofering, Amidon
Joe Porten, Scranton
Leonard Jacobs, Reeder
Gene Davison, Hettinger
Joseph Steier, Reeder
Norris Peterson, Bowman
Simon J. Greff, Regent

October 12, 1981

Mr. Vern Fahy
State Engineer
North Dakota State Water Commission
900 East Boulevard
Bismarck, ND 58505

Dear Mr. Fahy:

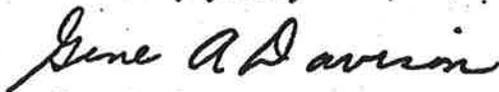
On October 8, 1981 a meeting was called in Hettinger, North Dakota of the representatives of the Southwest Water Cooperative and all representatives of the towns proposed to be served by the Southwest Water Cooperative. The purpose of the meeting was to further explain the various routings in the interim study report of alternative systems for the Southwest Pipeline Project and make recommendations on a proposed route as it relates to the Southwest Water Cooperative service area.

In review of only the Alternates A, B and C which are proposed to serve the area primarily West of Hebron and South of Interstate 94, the group gathered at the meeting approved a motion to support the proposed Alternate A. Discussion of the routes resulted in a majority support of Alternate Route A. Further discussion sited some concern in the ability of Alternate A to serve potential interest which may surface in the Western portion of Morton & Grant co's. Should this be the case, the Water Commission may want to consider the second preferred Alternate Route C. In addition, the group approved a motion in support of a single water treatment facility located nearest the source as opposed to the multiple treatment plant concept.

The combined endorsement of Alternate A with a single treatment facility assumes the inclusion for adoption by the State Water Commission the entire Alternate A including primary and secondary lines.

A list of those persons in attendance is submitted with this letter as an indication of the support for the above stated endorsements and concerns.

Sincerely yours,



Gene Davison
Chairman
Southwest Water Cooperative

GD:md

Attachment

Name	ADDRESS	REPRESENTING
Mark Johnson	Bismarck	Houston Engineering
Arnold Ratering	Amidjar	South west water Coop
Chris Tarpis	New England	Mayor
Henry Watson	Mott	Councilman
Bob Bohred	Heitinger	Councilman
Phil Tebel	Mott	Councilman
Jim James	Mott	Councilman
Gale Schmidt	Mott	Councilman
DOUG HOFF	BISON	
Danell L. Papp	Heitinger	South west water Coop.
Tom Nelly	"	Mayor
Ben Olien	Mott	Mayor
JERRY OESTER	DICKINSON	Roosevelt-Cassidy Reg Comm
R.E. JANGLA	HEMMON	PERKINS Co. Comm
Curtis H. Hanks	Hemmon, S.D.	City of Hemmon, S.D. Perkins County, S.D.
Harold Hintz	Hemmon, S.D.	Hemmon City Council
Joe Porten	Scanton, N.D.	Southwest water Coop.
Hernon Ther	Scanton, N.D.	City Board
Harri Peterson	Bowman, N.D.	Southwest Board Member
Ray Lorenz	Bowman, N. Dak	Bowman City Comm.
Kelly Oign	Bowman	Bowman Comm.
Garret Henderson	Lodypole S.D.	
Jack Waddell	Brain, S. Dak.	City of Brain
Robert Shum	Heitinger	City of Heitinger
Pill Kramer	Lodypole S.D.	Dakota Co. Comm.
Pete Henschke	Bismarck S. Dak	Exec Committee
Vince Hurn	Brain S. Dak	Hemmon Co. Exec.

Name

The Standy	Regent	Hettinger Co. Com.
Frank Fabner	Regent.	Major
Simon Huff	Regent	Member S.W. Veter
Sheldon Pannenfelzer	Hettinger	Hettinger City Land.
Leonard Jantz	Reeder ND	S.W.
George Steen	Reeder N.D.	S.W.
Alne A. Quinn	Hayes ND	Ch. S. Wintercamp
Larry Jackson	Reeder, N.D.	Mayor

PROPOSED STATEMENT FOR WATER COMMISSION MEETING,
OCTOBER 13, 1981, 9:30 O'CLOCK A.M.
STATE OFFICE BUILDING
900 E. BOULEVARD, BISMARCK, NORTH DAKOTA
FOR THE PURPOSE OF SELECTING A CORRIDOR
FOR THE SOUTHWEST PIPELINE PROJECT

My name is Clay Gerboth and I am chief geologist for the Western Division of The North American Coal Corporation. My responsibilities include the development of coal reserves and the preservation of such reserves for future development.

As the representative of The North American Coal Corporation and its subsidiaries, I have been invited to discuss with members of the State Water Commission staff and its consulting engineers the proposed Southwest Pipeline project. I have had the opportunity to inform these people as to the location of our reserves and, in general, our plans for development. We greatly appreciate the courtesies and cooperation afforded to us during these meetings and we are confident that the pipeline project can be routed in such a manner as to effectively reduce the adverse impact that the line may have on such reserves.

Certain of these reserves have been dedicated to ANG Coal Gasification Company, and, thus, ANG will ultimately be involved in any decisions affecting such reserves.

It is expected that an acceptable agreement will be reached between North American and the State of North Dakota providing for the time when affected coal reserves will actually be mined, if such does occur during the life of the water line.

We will look forward to continuing our pleasant working relationship with the Commission staff and its consultants.

Thank you for this opportunity.