MINUTES OF T	HESENATE	COMMITTEE ON AGR	ICULTURE AND	SMALL BUSI!
Held in Room	423-S	, at the Statehouse at	10:00 a.m.	a. m./p. m.,
on	Wednesday, Ja	anuary 28, 1981		, 19
All members were	present except:	*		
		ll be held at10:0		a. m./p. m.,
	the meeting held o	Wednesday, Ja		
considered, correc	ted and approved.			
		Ind	(Merr) Chairman	

The conferees appearing before the Committee were:

Francine Neubauer, Executive Director, Kansas Water
Resources Board

Senator Kerr called the meeting to order. Senator Arasmith, sponsor of S. B. 29, gave background information relating to the bill. Senator Arasmith said there are several requirements in the statute in order to be recognized as a county fair. Among other requirements, 10 acres of land must be owned. He said he is presenting S. B. 29 on behalf of the Jewell County Fair since they own only 2 3/4 acres and they do not feel they need any more. Jewell County wants the opportunity to be recognized as a county fair in order to request funding from the county commissioners for the fair. They have operated on a donation basis thus far and the county commissioners are agreeable to help without a mill levy. Last year the cost was less than \$1,000.

Senator Norvell said he had been studying the various statutes pertaining to county fairs since Ellis County wanted to buy more land. He feels an interim committee should make a study of all laws pertaining to county fairs to determine the feasibility of incorporating them into one law. Senator Montgomery questioned the advisability of making this particular bill applicable statewide. Senator Arasmith preferred to proceed on the basis of the bill as introduced; then change it if in the future others become so interested.

After considerable discussion, Senator Arasmith moved, and Senator Allen seconded, that the committee adopt the amendment. (See amendment attached). Senator Gannon moved and Senator Norvell seconded that Senate Bill No. 29 as amended be moved out of the committee. Motion carried.

Senator Kerr then called on Senator Warren who is the primary supporter of Senate Bill 31 to give a short background on the Missouri River Compact. Senator Warren stated shallow places in the rivers could be dredged out to meet the requirement for a nine foot channel for barge traffic. Senator Kerr said the committee would give further consideration to Senate Bill 31 next Wednesday and Thursday.

CONTINUATION SHEET

Minutes of the SENATE AG Committee on Wednesday, January 28 , 1981

For a further briefing on S. B. 31, Francine Neubauer, Executive Director of the Kansas Water Resources Board, was introduced (See her briefing statement attached). She had participated in a Missouri River Navigation Conference on July 29, 1980. Representatives from the states of Iowa, Nebraska, Missouri and Kansas were present at that conference. Senator Joe Warren was a member of the panel. Mrs. Neubauer stated such a compact would have to be signed by the Governors before active participation can take place. In answer to Senator Gannon's question, Mrs. Neubauer stated Nebraska has enacted the compact. Senator Warren mentioned several organizations are making studies now in regard to the Missouri River Compact. Senator Karr questioned if there was any lengthy discussion relative to the water flow --would there be enough to maintain such a channel and meet domestic needs. Senator Warren felt water could be utilized from the various Kansas dams. In answer to Senator Thiessen's question, Senator Warren said the dredging would be an ongoing process. Mrs. Neubauer's remarks are summed up in her briefing: "It is my personal opinion that this project is worth supporting. Based on a long-range program, it will have a tremendous impact on Kansas' economy."

Senator Warren distributed a summary pertaining to the September 17, 1980, subcommittee meeting he chaired on Missouri Barge Traffic. (See attachment to original minutes)

Senator Allen moved, Senator Arasmith seconded, that the minutes of the January 26, 1981, meeting be approved as written. Motion carried.

Meeting adjourned.

BRIEFING ON Senate Bill 31 - Missouri River Compact by Francine Neubauer Executive Director, Kansas Water Resources Board January 28, 1981

- 1. I first became interested in the Missouri River Compact during the 1980 Legislative Session, when Senator Warren requested that I come up to brief the Committee on Agriculture and Small Business on Senate Bill 747 relating to the development and promotion of barge traffic on the Missouri River.
- 2. Later in the year I was contacted by Jim McPherson,
 Executive Director of the Mo-Ark Association in Kansas City,
 Missouri, who asked me if I would be interested in participating
 in a Missouri River Navigation Conference on July 29, 1980.
 Remembering several discussions which had taken place since
 the end of the Legislature, I accepted and decided to take part
 in a panel discussion on that date

In preparing for this conference Jim and I met several times to discuss the kind of participants needed and the type of speakers to be invited. We were aware that such a conference would create some reaction on the part of various interest groups. We discussed several ways to advertise the conference, decided on a press release, and a flyer to be sent to the heads of private, state and other business groups. Colonel Pete Selleck (Corps of Engineers) was invited to speak about the development of problems of the Missouri River navigation system; following his presentation, panel members would discuss the

proposed Missouri River Compact. Representatives from the states of Iowa, Nebraska, Kansas, and Missouri were present. Senator Joe Warren, was a member of the panel, also Randy Moody, Director of the Missouri River Marketing Office in Nebraska, Dr. Wayne Hall, Chairman of the Missouri River Basin Commission, Robert Hunter, Director of the Missouri Department of Highway Transportation, and myself were included. (Attached for your information are copies of the press release and program sent to industries and business people on federal, state, and local levels.) Sixty-five (65) persons registered, an important factor since this was a new proposal representing a challenge to other interests such as railroads and trucking companies.

3. My third involvement with the Missouri River was the inspection tour of the Missouri River from Leavenworth to Kansas City at the invitation of the Corps of Engineers. Governor John Carlin was the special guest on this tour. Watching the traffic on the river, I saw only one barge during the trip and questioned the reason for such small operation on the river. The Corps of Engineers mentioned they estimated they could move as much as 20-30 million tons of cargo but had only reached a total of 3 million tons.

DISCUSSION:

A. Reaction from the audience:

- (a) truckers and railroads will find it difficult to endorse the project - competition
- (b) shippers would like to have the proposal become reality and take it from there
- (c) general attitude: a touchy subject!
- B. Speakers: Shared their views on three main points
 - (1) impact on economy not only for Kansas but for all 4 states
 - (2) financial assistance. \$ amount vs. commitments from state agencies sharing obligations and services
 - (3) endorsement from governors, 4 states signing the compact, sharing profits and responsibilities

C. Questions:

- (1) what can be done to more fully utilize this reserve
- (2) do we have adequate facilities
- (3) how do we promote

It is my personal opinion that this project is worth supporting.

Based on a long-range program, it will have a tremendous impact
on Kansas' economy.

BACKGROUND

1. Missouri River navigation provides additional and much needed carrying capacity for bulk commodities. Primarily, these bulk commodities are in three agriculturally oriented groups: farm products, food and kindred products and chemicals. For example, these three groups accounted for 88.1% of the total tonnage in 1977, 78.6% in 1978 and 81.7% in 1979.

During the past ten years, between 16 and 17 percent of the farm products in the lower Missouri River Basin were moved by barge, between 6 and 12 percent of the food and kindred products and between 17 and 22 percent of the agricultural chemicals. The majority of the movements on the Missouri River are either inbound or outbound, rather than local, with average distance per movement of 1,746 miles.

In addition to providing long haul, low cost transportation to agriculture, the availability of water transportation often results in what are called "water compelled" rates and the offering of volume discounts. Water compelled rates near the Missouri River have been determined to be approximately 10 to 12 percent less than averages of non-water completed rates for similar shipping distances.

For these reasons, the Missouri River would appear to be of great advantage to increasing (or maintaining) farm income and lowering farm costs in the lower Missouri River Basin by promoting a balanced transportation mix. This is especially true during periods of transportation equipment shortages and increasing fuel costs.

- 2. There are four charactistics of the Missouri River which make water transportation on it relatively less advantageous compared to other river systems. They are: (1) deficit of upbound cargoes; (2) lack of year round navigation; (3) relatively fast currents; and (4) unreliable channel depths,
- 3. Other programs now being addressed on a state wide basis could be expanded to a regional basis. For example, the Iowa Department of Transportation has established a program of rail-truck-barge combined freight rates. The shipper need pay only one bill at a set rate, therefore saving money and time. In addition, the State of Nebraska has set up an office to assist with transporting commodities by barge.
- 4. Continued flows of sufficient water to permit navigation could be a problem by the year 2000. Competition for water among energy, irrigation and all downstream uses, including navigation, will likely become serious political issues within the next 20 years.

DRAFT

For Immediate Release July 21, 1980 Contact: Jim McPherson (913-342-1910)

MISSOURI RIVER NAVIGATION CONFERENCE

Because of Midwestern Transportation concerns, representatives of industry and government will meet at a Missouri River Navigation Conference.

The Conference is scheduled for noon to 4:30 P.M. on July 29, 1980, at the Radisson-Muehlebach Hotel in Kansas City, Missouri.

Mr. John Anderson, President of Farmland Industries, will keynote the Conference at the luncheon.

The purposes of the Conference are to:

Assemble present and prospective users of the Missouri River in order to encourage cooperation between users and appropriate government agencies,

Discuss what can be done to encourage additional usage of the Missouri, particularly upstream bound barge traffic,

Increase awareness of the advantages of water transportation as an adjunct to other modes of transportation, and

Discuss ways of improving facilities on the Missouri.

Colonel C. A. Selleck, Missouri River Division Engineer, Corps of Engineers, will speak about the development and problems of the Missouri River navigation system.

Following Col. Selleck on the program, a panel will discuss the proposed Missouri River Compact, which would provide a forum for the States of Iowa, Nebraska, Kansas and Missouri to coordinate their activities on Missouri River Navigation. Senator Joe Warren of Kansas

and Representative D. R. "Ozzie" Osbourn of Missouri, sponsors of Legislation authorizing the Compact in their states will be participants on this panel. Nebraska and Iowa passed authorizing legislation earlier this year.

Randy Moody, Director of the Missouri River Marketing office in Nebraska, will also be a panel member. The newly established marketing office is a contact point for potential users of the Missouri River and designed to promote increased commercial traffic from Nebraska indutries.

The Conference concludes with a panel discussion of future activies on the Missouri River. The participants are Robert Hunter, Director of The Missouri Department of Highways and Transportation; Francine Neubauer, Director of the Kansas Water Resources Board; and Dr. M. Wayne Hall, Chairman of the Missouri River Basin Commission.

Missouri Governor Joseph Teasdale will meet with the Comference participants during the luncheon. Kansas Governor John Carlin will have a presentation made in his behalf to the conferences.

The Conference is sponsored by the Kansas City, Kansas Chamber of Commerce; The Kansas City Water Resources Board; The Kansas Department of Economic Development; The Missouri Department of Highways and Transportation; The Department of Natural Resources; The Missouri River Basin Commission and Mo-Ark Association.

MO-ARK ASSOCIATION P.O. Box 1160 Kansas City, Kansas 66117

		ROUTING TRAIP			
8.1	PROGRAM	(ka)			
12:00 Noon	Lunch Luncheon speaker, John Anderson, President, Farmland Industries				
1:15	Welcome by the conference moderator introduction of distinguished guest.	and			
1:30	River Development in the Missouri Riv Col. C. A. Selleck, Mo. River Div. Engi Corps of Engineers	er Basin ineer,			
2:00	Missouri River Compact (panel) Senator Joe Warren, Kansas Randy Moody, Nebraska-Dir. of Mo. River Marketing office Representive Ozzie Osbourn, Missouri				
2:30	Coffee Break				
2:45	Water Way Facilities John McKenzie, Executive Vice Preside SCNO Barge Lines, Inc.	ent			
3:15	Future Activities (panel Discussion) Bob Hunter Francine Neubauer Dr. Wayne Hall				
3:45	Questions and Summary				
4:30	Adjournment				
,	'Missouri River More Than Just Wa	ter"			

REGISTRATION FORM

Please register attendance for Missouri River Navigation Conference July 29, 1980.

Name_____

Company____

Address____

Enclosed for each luncheon, \$17.50

Mo-Ark Association P.O. Box 1160 Kansas City, Kansas 66117





Ms. Francine Neubauer Ks Water Resources Board 503 Kamsas, Suite 303 Topeka, Kansas 66603



MISSOURI RIVER NAVIGATION CONFERENCE

12:00 Noon, Tuesday, July 29, 1980

Radisson Muehlebach Hotel 12th and Baltimore Avenue Kansas City, Missouri 64105 several times during the last few weeks.

In fiscal year 1979, which ended Sept. 30, 1979, Kansas ranked sixth among states in value of exported farm commodities, according to the Kansas Crop and Livestock Reporting Service.

dollar value was \$1,569 million, a record.

Illinois, lowa, Texas, California Minnesota ranked ahead of Kansas, which was the leader in wheat and wheat product exports with \$879.7 million. Kansas was fourth in overseas sales of meat and meat products (excluding poultry), and also fourth in export of lard



The and tallow. The \$68.3 million in hides and skins sold abroad ranked sixth

Illinois' \$2,896 million worth of exports, which included \$1.24 billion each in soybeans and feed grains exports. Iowa followed closely in both categories. Texas was first in cotton and cottonseed oil, and third behind Illinois and Iowa in overall commodities.

lowa and Texas were first and second, respectively, in meats and proent thos muc and semi

California shipped out the most fruits and vegetables, as well as nuts and nut products. Although Georgia led in peanut and peanut product exports. North Carolina exported the most tobacco. . .

BEEF SUPPLIES for 1980 should remain below 1979's level and should stay fairly "snug" for the next year and a half, according to Cattle-Fax research director Tommy Beall.

Cattle-Fax estimates all cattle will be up one to three percent to 120.5 pmilion head; cows up one to two percent to 48.5 million; beef cows up two percent to 38 million; all heifers up two to five percent; replacement heifers up five to 10 percent to six million; heifers over 500 pounds up two to five percent; steers over five percent, unchanged.

Although the replacement heifer percentage seems large, it's based on a relatively small total, and only 60 to 70 percent of replacement intentions historically come true, according to Beall.

Beall said the slow expansion is a result of producers' concerns about interest rates, low profit margins, sluggish markets, dry weather and a struggling national economy.

GARDEN ADVICE from Art Johnson, Jefferson County extension director, is always good, probably because Johnson likes to garden himself. Here are some of his latest offerings:

breaks the natural dormancy the potatoes, causing sprouts to for himson suggests digging the potantian fremoving them to a cool basement or cellar with plans to use them as soon as possible. Oh yes, break off the sprouts

Johnson advises that gardeners figure their priorities in saving plants and shrubs. The newly planted trees and shrubs, because of higher investments and perennial nature, "should receive primary attention before any annual garden crops," he said.

Heat and drought-tolerant garden vegetables include: melons, cucambers, squash and pumpkins, all of which have a deep root system and are natives of a hot, dry climate. They can withstand stress fairly well.

Okra is also deep-rooted and tolerant of heat.

Peppers and eggplant can stand heat, but they have shallow roots and must be watered.

Tomato blossoms are dropping from heat and wind, but if one keeps the plants alive, they'll bloom again and set fruit for fall picking. If the weather changes, there's still time to plant a fall garden.

chemical budget to control noxious weeds, according to Evan Swartz, weed director. Of that, a whopping \$50,000 a year is spent on musk thistles alone

River development urged

By JIM SUBER
Raral Development Writer

KANSAS CITY — Failure to develop the Missouri River into a greater transportation resource is preventing further development of the stream's vast surrounding agricultural economy, John Anderson, president of Farmland Industries, said here Tuesday.

Anderson, luncheon speaker at a Missouri River navigation conference sponsored by eight government and private agencies interested in the river, said a bustling river freight business would enhance, not degrade, other forms of transportation, that, railroads and trucks.

As an example, he cited the development of Presidential Island in the Mississippi River at Memphis, Tenn., where barges, trucks and railroads all have come together to share in creating 6,000 jobs and a flow of \$625 million from more than 100 businesses on the industrial park-style island.

Anderson, who said Farmland is a

major user of the Missouri River, called on trucking, barge and railroad companies to cease perceiving the others as "bitter competitors," each of which tries "to work to undermine the other.

"There has been too little cooperation on matters of mutual interest," Anderson said.

The navigable portion of the Missouri River is from St. Louis to Sioux City, Yowa

In 1945, Congress mandated the river be developed to provide a channel allowing vessels to draw nine feet of water in a channel 300 feet wide.

Anderson noted that the last 100 miles upstream have yet to meet those standards.

Col. C. A. Selleck, Missouri River Division Engineer, U.S. Army Corps of Engineers, told the crowd his agency is working on the shallow water problem, which others at the conference said caused barges to be loaded an average 100 tons less than normal.

A typical barge holds 1,500 tons, or an equivalent of 15 railroad jumbo hopper cars of corn.

Selleck said the Corps' six main storage lakes in the basin's upper reaches had enough water to cause the Missouri River to flow three years. Because 1978 and 1979 were good years for water, there is sufficient — even in the drought this year — to keep the Missouri at its maximum navigable efficiency until the end of barging season this winter.

Despite its limitations (others are crooks and bends and a fast current which works against loaded tows head ed upstream) the Missouri still has untapped potential as transportation, according to Anderson and several others at the conference.

However, other interests are eyeing the river for its water.

Dr. Wayne Hall, Omaha, chairman of the Missouri River Basin Commission, said one of the future demands on the river's water supplies would come from fossil fuels energy development in the basin's northern states.

Hall said it was time to develop a "sound, comprehensive plan—that cuts across political boundaries and single interest constituencies" in or for to manage and better tap the resource of the Missouri.

USDA report to detail impact of drought, heat



MIDWESTERN CONFERENCE of the council of STATE GOVERNMENTS



Regional Director James H. Bowhay Assistant Director Virginia D. Thrall Suite 1200 203 N. Watash Chicago, Illinois 60601

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Vice Chairman
Representative Casmer P. Ogonowski
Michigan
Past Chairman
Senator Robert L. Clark
Nebraska

June 17, 1980

Honorable Joe Warren Kansas State Senator R. R. 1 Maple City, Kansas 67102

Dear Senator Warren:

Enclosed is some information I received from the Old West Regional Commission related to barge traffic on the Missouri River. Both the proposal submitted by the Nebraska Department of Agriculture and the proposal submitted by the North Dakota Legislative Council have been funded by the Commission.

Sincerely,

Ilene K. Grossman
Field Representative
Midwestern Office

IKG: jml

Enclosures

of the MIDWESTERN CONFERENCE OF THE COUNCIL OF STATE GOVERNMENTS

Senator Joe Warren, Kansas, CHAIRMAN

IOWA
Senator Jack Hester
R.R. 1, Box 136
Honey Creek, Iowa 51542
712/545-3581

Representative Wendell C. Pellett 206 East 21st Atlantic, Iowa 50022 712/243-2834

KANSAS
Senator Joe Warren
R.R. 1
Maple City, Kansas 67102
312/442-5651

MINNESOTA
Representative Wendell O. Erickson
Box 575
Hills, Minnesota 56138
507/962-3785 or 962-3241

NEBRASKA Senator Richard Maresh Milligan, Nebraska 68406 402/629-4436

NORTH DAKOTA
Senator S.F. (Buckshot) Hoffner
Minority Leader
Esmond, North Dakota 58332
701/249-3474

Senator H. Kent Jones Webster, North Dakota 58382

SOUTH DAKOTA Representative Milton Lakness Hayti, South Dakota 57241 605/783-3556

Midwestern Office Council of State Governments 203 North Wabash, Suite 1200 Chicago, Illinois 60601 312/236-4011

September 1980

CO/I/364

SUBCOMMITTEE ON MISSOURI RIVER BARGE TRAFFIC

of the

AGRICULTURE TASK FORCE

of the

MIDWESTERN CONFERENCE

of the

COUNCIL OF STATE GOVERNMENTS

Hilton Airport Plaza Inn Kansas City, Missouri

September 17, 1980

MEETING SUMMARY

Attendance:

Senator Joe Warren, Kansas, CHAIRMAN Senator Jack Hester, Iowa Representative Wendell O. Erickson, Minnesota Senator Richard Maresh, Nebraska Senator S. F. Hoffner, North Dakota Representative Milton Lakness, South Dakota

Mr. Randy Moody, Director, Missouri River Marketing Office, Nebraska Mr. George Ross, Manager of Transportation Regulatory Affairs, Missouri Farmers Association, Inc. Lieutenant Colonel David Sapp, Deputy District Engineer, Kansas City District, Army Corps of Engineers

Ilene K. Grossman, Field Representative, Midwestern Office

Senator Joe Warren, Kansas, Chairman, called the meeting to order and introduced Lieutenant Colonel David Sapp, Deputy District Engineer, Kansas City District, Army Corps of Engineers. The Army Corps of Engineers is responsible for maintaining the Missouri River and seeing that it remains deep enough to carry barges. The Corps also has charge of the navigation season (April through early December) by controlling the locks and dams on the upper Missouri.

There are 732 navigable miles on the Missouri River, from Sioux City, Iowa to St. Louis. The total commercial tonnage carried on the river in 1979 was 7,765,359 tons. Of that total tonnage, 3.26 million tons was commodity tonnage. Farm products such as wheat and corn make up 51 per cent of the commodity tonnage. Chemical products such as fertilizers and paints made up 32 per cent of the commodity tonnage in 1979. Food products, such as animal feed, flour, and soybean oil made up 14 per cent of the commodity tonnage, while

other products such as petroleum and wood and paper made up the remaining 3 per cent of the goods hauled on the river last year. Over the next 20 years, the Corps expects shipping to increase by five million tons per year.

Colonel Sapp said that the water velocities are faster on the Missouri than on the Mississippi River. Because of the currents, only nine tows per barge can be made downstream and only four tows per barge upstream on the Missouri. Up to 50 tows per barge can be made on the Mississippi. Another constraint on using the Missouri is that there are places where at times the channel is less than nine feet deep and 300 feet wide.

Colonel Sapp was asked if the upper Missouri River could be opened for barging. He responded that it is unlikely because of the dams on the upper Missouri, and because the area from Sioux City to Gavins Point (Ponca) is a National Recreation Area. Congress would have to pass legislation rescinding that designation, which is highly unlikely.

Randy Moody, Director of the Missouri River Marketing Office in Lincoln, Nebraska, was the next speaker. The Missouri River Marketing Office has been functioning for two months and is being funded by a grant from the Old West Regional Commission. The office has been set up to market existing services on the river and to encourage the development of new services and facilities.

Mr. Moody told the Subcommittee that there are only 56 terminals for all 732 navigable miles of the Missouri River. The Marketing Office is working on disseminating information about the services and facilities currently in place so that more shippers will take advantage of the river as a way to get goods to port and market. Mr. Moody said that it is unlikely that the upper Missouri will be opened to river traffic in the near future, but the more the river is used, the more trucks and hopper cars will be freed up for use by other states such as North and South Dakota. The Marketing Office will also be looking at means of tying up cities not on navigable portions of the river to terminal facilities on the river. As an example, the office will be looking into the possibility of taking some agricultural products by truck from Yankton, South Dakota to Sioux City, Iowa.

The Missouri River Marketing Office will be attempting to get new industry to locate on the river and to get established companies to utilize the river more. A particular effort will be made to get coal hauling on the river. At the present time, Wyoming coal is sent all the way to the Mississippi River. The office will point out that there are no locks and dams on the Missouri River. At

Locks and Dam 26 on the Mississippi, there is often up to a 66-hour wait to get through the locks.

Seventy-five per cent of U.S. agricultural products are now being exported. The Missouri River can be a cheaper and more energy efficient way of getting products to port. In addition, competition from expanded barging may cause the railroads to lower rates.

The final speaker was George Ross, Manager of Transportation Regulatory Affairs, Missouri Farmers Association, Inc. The MFA is an agricultural cooperative serving farmers from Missouri, Iowa, and Arkansas.

The MFA has barge loading points at a number of places along the river from Kansas City south. The MFA also owns grain elevators and has been able to work with the railroads to organize shuttle trains from the elevators to the loading facilities at peak harvest time.

Mr. Ross said that two factors make grain hauling on the Missouri River more expensive than it has to be. The shallowness of the channel keeps barges from loading to capacity. In addition, since there is not a great deal of industrialization along the river, barges often come upstream empty, making downstream hauls more expensive.

Mr. Ross said that the MFA would like to encourage more barge lines to operate on the river. Cooperatives like the MFA can be of service to farmers in establishing terminals and organizing transportation from grain elevators to river loading facilities. Mr. Ross said that it is most important to encourage the railroads to run shuttle trains and to encourage the barge lines to maintain and expand services for farmers.

Midwestern Office Council of State Governments 203 North Wabash, Suite 1200 Chicago, Illinois 60601

JUN 1 6 1980

PROJECT PROPOSAL

MISSOURI RIVER MARKETING OFFICE

Submitted to the

OLD WEST REGIONAL COMMISSION

by the

NEBRASKA DEPARTMENT OF AGRICULTURE / E. Mickey Stewart, Director

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I. BACKGROUND

The Nebraska Department of Agriculture, in seeking ways of dealing with the shortage of transportation equipment to move grain to market and with the rising costs of transporting anything into or out of Nebraska, has examined the potential of increasing the use of the Missouri River as a transportation system.

The Army Corps of Engineers has indicated that it considers the Missouri River to be an underused transportation facility. During a recent visit to Europe in the fall of 1979, we observed a barge on the Rhine River every three minutes while tows on the Missouri River are not yet appearing on a daily basis.

The Rhine River in Europe is not greatly different from the Missouri River in terms of depth and current speed up as far north as Ponca, Nebraska. This leads us to believe that it should be possible to greatly increase the utilization of this natural resource as a transportation avenue to markets in the eastern United States, as well as in the southern part of the United States.

Rising transportation costs have also renewed shipper interests in using the Missouri. Increasing supplies of barges have caused both the barge companies and the towboat firms to take another look at seeking business on the River.

Deficiencies noted during a recent Governors' Conference on the use of the River called by Governor Charles Thone of Nebraska, included a lack of good current information about the facilities that are currently available on the River to load and unload barges, facilities to store loads that are being accumulated

for barge shipment or once having been unloaded from barges are waiting distribution inland, after being unloaded. There is also a general shortage of information about barge rates, how to rent a barge, towing charges and markets for grains shipped by barges.

This information gap includes barge loading techniques, current river conditions and factors involved in accurately calculating the cost of shipping from the point of origin to the point of destination using intermodal rail barge or truck barge systems.

We learned that while some potential shippers complained that they have no facilities to load barges, there are also people on the River who own facilities that can load barges that have unused barge loading capacity which they are willing to utilize on behalf of other shippers who do not have these facilities.

Our experience in marketing agricultural products overseas and domestically has led us to believe that a similar operation to the Old West Agricultural Marketing Office, designed to market the services on the River itself and promote the use of the River with accurate factual information, could encourage the development of new service facilities on the River and maximize the use of the presently existing facilities on the River as an integrated transportation system that could serve the entire Old West Region.

We envision the development of shipments of grain and other agricultural products produced throughout the Old West Region to river terminals by rail or truck. These terminals would offer warehousing and loading facilities that would transfer these products from the rail or truck to the River and store

them as long as necessary. The barges cannot only go down to the New Orleans area but they have also developed access points on the Arkansas and Ohio Rivers where we could deliver products that are produced in the Old West Region to new markets not currently accessible to us due to high rail and truck rates from our region.

Coal from mines in the Old West Region could also be shipped to power plants throughout the River system using this intermodal transportation system from the coal mines to the Missouri River. The turnaround time for trucks and rail equipment could be greatly improved if such an intermodal transfer and rate system was developed, assisted and encouraged by the proposed office, staffed by people experienced in the use of the River and knowledgeable about marketing Old West products.

The Nebraska Department of Roads has already begun a study of potential sites and existing transportation facilities that will need to be improved in order to maximize the use of existing barge facilities and to pinpoint potential sites for new barge facilities that would be available by both rail and highway connections. We intend to build this data into our State highway planning operation in the future. Our State rail transportation plan will also include data on rail barge transportation opportunities.

We also want to assist in the development of upriver movement of agricultural input such as fertilizer and fuels and other products used by farmers and ranchers, as well as industrial firms, throughout the five-state region because we believe that with the lower cost of water transportation, we should be able

to produce a substantial reduction in the cost of these items used to produce agricultural and industrial products in our region.

OBJECTIVES:

- A. To create in a single place a source of information and assistance for agricultural and industrial firms that would like to learn how to use the Missouri River for transportation.
- B. To assist and encourage the development of additional sites for transferring shipments of all kinds from rail and truck to barges and to assist in transferring shipments from barge to rail and truck transports for distribution throughout the Old West Region.
- C. To work with transportation firms and appropriate agencies in the Old West states and with Federal agencies to develop reliable intermodal rate information for shippers of agricultural and industrial products in the Old West Region.
- D. To assist firms with facilities already on the River to locate inland firms that would utilize their loading and unloading services to maximize the use of existing facilities on the navigable portion of the Missouri River.
 - E. To provide a contact point for firms seeking barges, towing services, and warehousing services on the Missouri River.
 - F. To provide a contact point for barge firms, tow boat firms, and other river services to help them locate new customers on the River for their service.

- G. To assist marketing agencies in the five Old West Regions in reducing transportation costs for industrial and agricultural firms in their states by introducing these firms to the opportunity to use water transportation and intermodal transportation services to reach the markets on the inland river system and through the overseas ports accessible by the River system at a lower cost.
- H. To work with appropriate State, Federal and local agencies to improve access to barge loading and unloading sites by rail and truck transport.
- I. To assist firms in the Old West Region in obtaining information about sales opportunities for agricultural and industrial products within the inland River waterway system and at the port of New Orleans.
- J. To encourage and foster the development of private firms to do freight forwarding using the River system as much as possible throughout the Old West Region.

METHODOLOGY:

- A. Inventory all existing barge loading, unloading and warehousing facilities on the River.
- B. Contact the above firms to learn which, if any, have unused capacity that they are willing to use to serve other firms in the Old West Region to facilitate the use of barges on the River, both upriver and downriver.
- C. Meet with firms who can use products that could be moved upriver, such as fertilizers and other products to encourage them and assist them in developing upstream loads for barges that can then be used to ship products downriver.
- D. Work closely with local port authorities to publicize available facilities and to teach inexperienced firms how to make use of the River.
- E. Work with marketing office in all of the Old West Regional states to set up a series of meetings to demonstrate the opportunities available to firms in those states to reduce the cost of using the River as a distribution system for their products and as a means of obtaining products they import to their states from other areas at a lower cost.
- F. To work with the Nebraska Department of Roads and the Army Corps of Engineers and other appropriate agencies to participate in a long-range plan for coordination of road, rail and barge shipments and related facilities to make sure that intermodal transfer of shipments is as efficient as we can possibly make it.

- G. Work with the Army Corps of Engineers and Coast Guard authorito to keep current on River conditions so that we can assist firms loading barges to obtain the maximum loads possible on the River for that given set of River conditions on that day.
- H. Organize a publicity campaign consisting of news releases, news conferences and a speakers bureau of experienced, knowledgeable people and other appropriate media contacts to promote the use of the River as a transportation system.

PERSONNEL REQUIREMENTS:

We have no candidates to submit to the Old West Regional Commission to operate the proposed Old West River Marketing office at this time. However, we do suggest the following requirements for the personnel that would run the office.

We envision an office that would contain at least one individual who is thoroughly knowledgeable about the art of reaching both domestic and foreign markets with products that are produced by industrial and agricultural firms in the Old West Region.

One person in the office must have a thorough knowledge of river firms, barge companies, tow boat companies, government agencies, the river depth, barge capacity, current river conditions and services of all types that are available to shippers on the River.

The staff must contain people capable of locating firms on the River that would be interested in purchasing, transporting or exporting products that are produced in the Old West Region and are accessible to the inland River system from the Missouri River.

Someone on the staff will have to have adequate administrative ability to manage the office and prepare regular reports to the Old West Regional Commission about the activities of the office. t would also be helpful if at least one person on the staff had good ia contacts thoughout the Region or experienced at public relations or journalism or some related field such as advertising so that they could prepare publicity material with a minimum of financial cost to the Commission office.

PROJECT PROPOSAL

MISSOURI RIVER TRANSPORTATION COMMISSION (TRANSPORTATION ALTERNATIVES STUDY FOR THE UPPER MIDWEST)

Submitted to the

OLD WEST REGIONAL COMMISSION

by the

North Dakota Legislative Council in cooperation with the States of Montana, Nebraska, South Dakota, and Wyoming

PROJECT PROPOSAL TO THE OLD WEST REGIONAL COMMISSION

Missouri River Transportation Commission (Transportation Alternatives Study for the Upper Midwest)

PROJECT SUMMARY:

This project proposes establishment of a Missouri River Transportation Commission involving participating states of the Old West Region to accomplish specific objectives. This commission will be composed of four representatives from each of the participating states. The commission will be responsible for project direction and administration directly and indirectly through a project coordinator or supervisor who will be hired by the commission. Most of the work on specific tasks of project objectives will be accomplished by contracting on a consulting basis. The project will require consultation with private industry, participating states' universities and land grant colleges, state agencies, the Corps of Engineers, and other sources.

The goal of the project will be a comprehensive report discussing the project's objectives and making recommendations based on various studies and evaluations completed. The report will be the basis for recommending continuation of a Missouri River transportation project, including necessary construction, or for discontinuation. Preliminary reports and quarterly progress reports will be made to the governors and legislatures of the participating states.

PROJECT DURATION: July 1, 1980, through June 30, 1982 (two-year study)

ESTIMATED TOTAL COST: \$490,000

OBJECTIVES:

- 1. Review and evaluate the characteristics of the Missouri River, with special emphasis on the upper Missouri from Ft. Benton to Sioux City, to determine its physical capabilities for supporting a barge transportation system, including a determination of the costs of developing and maintaining the upper Missouri River system to make it compatible with the existing system below Sioux City.
- 2. Identify and evaluate alternative techniques for navigating the upper Missouri River, overcoming the obstacles of the six mainstem dams, including alternatives other than locks.
- Determine the logistical effects of barge traffic navigation on the Missouri River, including an investigation of existing inland port facilities and planning

for possible new facilities, transfer points, or depots which may be required by new systems for grain handling or movement of products.

- 4. Determine the economic effects of navigation on the Missouri River, including a cost-benefit analysis of extending navigation to various points, as far as Ft. Benton, utilizing both primary and secondary benefits.
- 5. Review and evaluate the existing marketing scheme for the region for products which show potential for transportation by barge, identify new markets which may result because of further development of Missouri River transportation, especially the upper Missouri, identify marketing options which will maintain integrity of products throughout the transportation system, and seek the involvement of private industry and other sources of investment finance in marketing possibilities.
- 6. Identify and evaluate energy saving that may accrue because of the development and use of Missouri River transportation, and the resulting savings to other transportation systems.
- 7. Investigate the potential for an integrated transportation system which would couple existing transportation modes and an improved Missouri River transportation system into a workable intermodal transportation system which would meet the current needs of the upper midwest, as well as provide new options for marketing and for the economic development of the nation.

INTRODUCTION:

Transportation

Adequate transportation is critical to the midwest. It is the number one problem facing a number of Old West Regional Commission states. The turnabout in the adequacy of the transportation systems could not have come at a worse time. Buoyed by constantly rising export demand, United States' farmers are expected to produce about 13.5 billion bushels of wheat, corn, soybeans, and other grains in fiscal year 1980, about 70 percent more than in 1970 and eight percent higher than last year. Farmers stand ready to dispose of hundreds of millions of bushels of grain accumulated in federally subsidized, on-farm storage bins. Also, the American farmer expects to sell about 4.64 billion bushels of grain overseas in 1980, a quantity that may well exceed the transportation system's capacity.

The closing of many railroad branch lines has made the transportation system even more snarled in some areas. Grain hauling truckers have found themselves in an unexpected position. Traditionally competitive with railroads only within a 75- to 100-mile radius of major export or junction facilities, truckers had been expected to lose many short-run customers to the more fuel efficient railway firms because of diesel fuel costs. But, many operators are now relying on trucks even for longer hauls. Additionally, highways and bridges are under more stress with increasingly heavy truck traffic loads. The cost of rebuilding and maintaining the highways and the cost of diesel fuel for motor carriers are also skyrocketing.

In North Dakota there are 106,482 miles of public roads and streets. There are 7,121 miles of roadway on the state network (seven percent of the total roadway network of the state). Annual motor vehicle miles of travel have increased 49 percent in North Dakota from 1968 to 1978. Total disbursements for all units of government for roads were \$160,641,253 for fiscal year 1978. Total disbursements for the state in fiscal year 1978 were \$86,373,678. According to the Highway Commissioner \$23 million in additional funding will be needed for the State Highway Department's 1981-83 budget.

There are over 5,000 miles of rail line in North Dakota. However, all of the Milwaukee road branch lines (about 165 miles of track), except the New England branch line, will be abandoned. Presently there is a total of 609 miles of rail line in North Dakota that fall into one of three abandonment categories.* Abandonment and boxcar shortages mean increasing reliance on a burdened highway system.

* The three categories include anticipated abandonment, under study for possible abandonment, and application filed with the ICC for abandonment.

South Dakota, farmers are experiencing much more difficult problems in transporting their products to market. While the current focus is on the rail abandonment issue, the long-term problem is much broader. The highway and road systems serving the state are rapidly deteriorating and many miles are no longer adequate to serve the needs of commerce and agriculture. Neither the state nor local units of government have adequate funding to maintain the existing road system and the financial system is getting worse. As abandonment of rail lines follow deferred maintenance and deteriorization of rail lines, abandonment of highways and roads may follow deferred maintenance and deteriorization of roads.

South Dakota is served by about 81,500 miles of highways, roads, and streets. Eleven percent of this mileage is maintained by the state government and the remainder is maintained by local units of government. Just over 15,000 miles of highways are paved, of which about half are maintained by the state. The heart of the highway and road system which serves South Dakota agriculture is the 5,877-mile federal aid primary highway system. This system connects the various communities in the state and provides farmers with access to distant markets. Currently there are nearly 800 miles within the primary system which need immediate reservicing before they deteriorate to the rebuilding stage. Also, the state is currently over \$175 million behind in maintaining the primary system to federal standards. Because costs are increasing faster than revenues, it is falling behind by an additional \$30 to \$40 million each year on the primary system alone. In 1978, the state of South Dakota spent \$101 million in highway maintenance.

The condition of the state's secondary system has not been evaluated recently by the South Dakota Department of Transportation. However, the amount of money expended on these roads probably indicate their condition. Without proper maintenance, these roads are deteriorating rapidly beyond normal maintenance and will need rebuilding. Also, many of South Dakota's rural bridges are obsolete. It is probably safe to assume that many miles of township and county roads are inadequate and, in places, are unsafe for 1980 traffic. With railroad abandonment the reality in South Dakota, additional stress and strain is put on the South Dakota primary and secondary road systems.

South Dakota presently has 2,758 miles of railway lines. However, as much as two-thirds of it will probably be abandoned. As late as 1976 South Dakota had 3,340 miles of rail lines. In 1925 it had 4,425 miles of track. In 1976, 30 percent of the railroad system carried 90 percent of the rail traffic.

South Dakota's rail system and highway system are in extreme jeopardy. Unless something is done to alleviate the problem, transportation of agricultural products and raw materials from South Dakota will continue to be a source of frustration and a financial headache to the state.

The 26th lock and dam on the upper Mississippi River, at Alton, Illinois, is also in trouble. The complex is 38 years old and deteriorating badly. This lock and dam is very strategically located and it must handle traffic from both the upper Mississippi River and the Illinois waterway system. It handles approximately 54 million tons of cargo per year but has a practical capacity of 46 million tons. Although the project to replace Lock and Dam 26 has been approved and funds appropriated, the project has been tied up in a lawsuit since August 6, 1974. In short, Lock and Dam 26 is a serious and costly bottleneck in the main river system of the United States at a time when alternative modes are also in trouble.

In 1979, 3,260,640 tons of goods were moved on the Missouri River. Estimates show that the Missouri River could carry from six to 12 times more traffic than it does. Nevertheless the Missouri is underused and will probably remain so until a greater demand for upstream barge traffic can be created. Perhaps extension of navigation to the upper Missouri will help create more demand.

In the United States today there are 25,043 miles of improved inland waterways, 15,675 miles are nine feet or more in depth, and can be used by the most modern barge equipment. This system is composed of five major subsystems—the Atlantic Coast Waterways, the Atlantic-Gulf Intercoastal Waterway, the Gulf Coast Waterway, the Mississippi River System, and the Pacific Coast Waterways.

The barge mode of transportation tends to specialize in carriage of low-value, bulk commodities moving long distances. Major commodities are petroleum, coal, grain, and chemicals. While some barge traffic is regulated by the ICC, most bulk commodity movements are not, and rates are determined through shippercarrier bargaining. The industry is dominated by small firms, those operating 10 or less vessels. From 1950 to 1973 the percentage of total freight ton-miles within the United States moving on inland waterways rose from just under five percent to nearly ll percent. The barge mode is becoming an increasing factor in grain transportation, with a nearly two-thirds increase in ton-miles moved from 1968 to 1973.

There are two broad classes of public expenditures to support the inland waterway system: the structure expenditures and those for operation and maintenance. The total outlays are approximately evenly divided between these two classes. The bulk of these expenditures come about through the waterway development program of the Army Corps of Engineers. In addition, the Coast Guard, the TVA, and state and local governments make expenditures in support of inland navigation. None of the major federal expenditures are reimbursed by waterway users.

Navigation costs tend to vary rather widely over river segments. It is clear that these costs do differ across waterways, especially on a per ton-mile basis.

Missouri River is principally oriented to serving agricultur, and related food processing sectors of the river basin. The average length of haul on the Missouri River is 485 miles. The total navigable length is 732 miles. On a ton-mile basis, about 71 percent takes place between Kansas City, Missouri, and the mouth, 26 percent between Kansas City, Missouri, and Omaha, Nebraska, and only three percent between Sioux City, Iowa, and Omaha, Nebraska. Although this three percent ton-mile figure is often used, it is somewhat misleading as the distance between Sioux City and Omaha is only 107 miles. During 1977, 514,345 tons of commerce was moved on this river segment, representing 15.8 percent of the total Missouri River tonnage.

The present Missouri River navigation and bank stabilization project, nine-foot depth by 300-foot width, was authorized in 1945. This was an extension of the six-foot depth from the mouth of the Missouri near St. Louis, Missouri, to Kansas City authorized in 1912, the 200-foot width which was authorized in 1925, and the six-foot depth by 200-foot width from Kansas City to Sioux City authorized in 1927. Construction activities are now about 98 percent complete; the remaining work to be accomplished is below Kansas City.

In 1977 grains represented about 37 percent of the total commodity flow on the Missouri, wheat about 27 percent, corn and soybeans represented about five and four percent, respectively. The food and kindred commodity group represented about 22 percent of commodity movements in 1977. Chemicals represented about 16 percent of the movements, consisting mainly of fertilizer (14 percent). Significantly, an increasing amount of cargo is being handled from and to points above Kansas City in recent years.

Presently, the several modes of transportation are regulated to varying degrees under the provisions of the Interstate Commerce Act. Rail and motor carriers are subjected to the most stringent regulations while domestic water transportation, although the subject of generally increasing regulation, is still only partially regulated. Much waterborne shipping is exempt from regulation and regulation where it does exist is primarily confined to rate structure. Railroads are regulated by the Interstate Commerce Commission which is responsible for freight approval. The ICC rules dictate that all rates must be "just and reasonable," which in practice has come to mean that they are compensatory.

Railroad shipments competing with water shipments tend to be the lower cost, long distance transfers rather than the short distance hauls. Railroads generally compete with the marine mode for lower value goods and with motor carriers for higher value goods. In areas where railroads are in competition with water carriers, the railroads have tended to reduce rates in order to maintain market shares. These "water-compelled" rates are justifiable from an economic standpoint provided they exceed long-run variable costs which have been established by the ICC as the lower limit for rail rates. A 1976 study prepared for the Corps of Engineers

determined that at that time rates near the Missouri River tended to be 10 to 12 percent lower than average nonwater-compelled rates for shipping distances of similar lengths.

Analyses by various governmental agencies have indicated that the railroads have not been able to provide adequate service to the grain handlers which have desired rail service. According to the Interstate Commerce Commission, the railroads have only occasionally had grain cars to spare since 1972, and at no time since 1977 have the railroads caught up with the request for grain cars. In August 1979 there was a daily shortage of 24,000 jumbo grain hopper cars.

Marketing

North Dakota ships its grain and oilseed by rail and truck primarily to Minneapolis-St. Paul or to Duluth-Superior (about 75 percent). Ten percent of its shipments go to west coast markets and 14 percent go to miscellaneous markets. In 1978-79 the railroads hauled 59 percent of the shipments and the trucks 41 percent. In 1974-75 the railroads handled 81 percent and trucks 19 percent.

In South Dakota production of its six most important commodities (barley, corn, oats, sorghum, soybeans, and wheat) in the mid 1980's will be in the range of 325-330 million bushels. It will require about one million truckload movements to haul these commodities. The combined grain and feed movements between farms and local markets in South Dakota will involve 475 million bushels, 1.5 million truckloads, and 22 million truck-miles driven. the rail system deteriorated and was reduced, the highway system improved. Thus, the railroad's share of this traffic has declined until only approximately 64 percent of the state's grain exports were shipped by rail in 1974. Approximately 193 million bushels of grain and feed will be exported from South Dakota in the mid 1980's. This will require as many as 257,000 truckloads or up to 55,000 covered hopper carloads. There is presently no alternative in South Dakota to keep at least some of this grain traffic on the rails.

In Nebraska, the feed grain and soybean harvest of 1979 was one which will not soon be forgotten by those who participated in its production and marketing. Yields and production broke all previous records. Record export demands for the crop placed record service requirements on transportation handling systems. Record movements of grain from farms to elevators and into inland export terminals were reported. At the same time, complaints of inadequate capacity to store and transport the grain were perhaps also of all-time record proportions. In total, about 40 percent of all wheat shipments, 56 percent of all corn shipments, 49 percent of all grain sorghum shipments, and 34 percent of all soybean shipments leaving Nebraska elevators in 1977 were bound directly for out-of-state destinations.

and major means of moving Nebraska's export grain to the seaboard are barge and rail. On the average, over the last 10 years, Nebraska producers have supplied an additional 37 million bushels of feed grains, food grains, and oilseeds each year. increased production is putting a tremendous strain on both the railroads and barges in Nebraska. Nebraska faces a possible change in the structure of the grain industry itself whether that be by the construction of subterminal facilities handling unit train shipments or the coordination of merchandising decisions by elevator managers to facilitate shuttle train movements. It also must face changing purchasing patterns emerging in the farm level bidding for Nebraska grains as a result of the changing structure and the increased reliance on motor carriers to move grain over longer distances. The limitations of a future role for the Missouri River as a means of transporting grains to market also becomes an important decision for Nebraska.

Energy Efficiency

Much has also been written concerning the relative fuel consumption or energy efficiency of the various modes of transportation. The area of transportation efficiency subject to the largest uncertainties and argument involves a comparison of water and rail energy intensiveness values (probably because both are relatively energy efficient transportation modes). The comparison of energy intensiveness between rail and water are inconclusive. vary over a wide range between the modes: rail from 238 to 771 BTU/ton-mile, unit trains from 226 to 359, and water from 217 to 785. Three studies show rail as more efficient while nine studies conclude that water transportation is more efficient. intermodal comparisons of energy intensiveness are inconclusive and divert attention away from the more significant intermodal economic issues. The energy consumption of each surface mode with respect to a given commodity and origin-destination would be required to determine and compare more accurately relative fuel efficiencies. Motor truck energy efficiency should also be considered, when essential to the transport movement.

Conclusion

With the tremendous increase of energy development and the substantial expansion of world grain marketing and national grain production in the Old West Region, an additional reliable source of transportation is needed. Of the available transportation modes, rail, motor carrier, airline, pipeline, and marine, perhaps marine (water transportation) is the most reliable. The cost of rebuilding and revitalizing even the existing railroad system is and will continue to be tremendous. Also, fuel costs for railroads will increase in the future. Motor carriers are faced with the rising costs of fuels. State highway departments and federal highway authorities will be hardpressed to meet the cost of rebuilding and maintaining the nation's highways. Of course, airline transportation for agricultural products and other natural resources presently is impractical and prohibitive.

Pipeline transportation, although possible, involves high initial costs and the utilization of additional land. It also means a relatively slow method of transportation. A ready, immediate source of transportation is especially crucial for the seasonal transportation of agricultural products. Because the Missouri River is an existing waterway and barge navigation is an efficient user of energy, it becomes a likely alternative.

REVIEW OF EXISTING RESEARCH AND LITERATURE:

Other Studies

Navigation on the Missouri River utilizing diesel-powered towboats between Kansas City and the mouth dates back to 1915. In 1935 operations were extended to Sioux City. Since that time there have been numerous expressions of interest in extending the navigation project to Yankton, South Dakota, and beyond, possibly terminating as far upstream as Fort Peck Lake, Montana. The desire for low cost transportation of agricultural products stimulated project support during the early years. More recently, the search for the most economical exploitation of the vast coal reserves in Wyoming, Montana, and North Dakota has been a companion interest.

There have been six Corps of Engineers' reports (1881, 1910, 1926, 1933, 1965, and 1977) which have addressed the potential for extending navigation above Sioux City. The 1965 review report on the Missouri River in North Dakota, South Dakota, and Nebraska specifically focused on the erosion problems and the need for and feasibility of navigation in the reach of the Missouri River extending from Sioux City, Iowa, to the North Dakota-Montana state line (853 miles). This study considered the construction of 12 locks at the five mainstem dams in this reach (one at Gavins Point, two at Big Bend, three each at Fort Randal, Oahe, and Garrison), five locks and dams on the reaches between existing large multipurpose structures, and two locks and dams between Sioux City and Yankton, South Dakota (Gavins Point). It also considered an alternative route which would employ two locks and dams between Sioux City and the mouth of the James River (downstream from Yankton) and 20 locks and dams from the mouth of the James River to Lake Sakakawea (Garrison Reservoir). In addition to an examination of the bank erosion problems, an extensive study was made of an area consisting of 147 counties (3-Nebraska, 66-South Dakota, 53-North Dakota, 11-Montana, 3-Wyoming, and 11-Minnesota) which might be considered potential sources or destinations of waterborne commerce that might move over a navigation project between the North Dakota-Montana state line and Sioux City. elements of the study showed a lack of feasibility except for one reach, Sioux City to Gavins Point. The proposed plan of improvement recommended an open river, nine-foot navigation channel, depending on dikes and revetments to contract and stabilize the waterway, and not slack water improvements involving locks and dams. The proposal also allowed for bank erosion control problems,

....nimizing the detrimental effects to existing fish and wildlife and recreational values in the reach, and incorporated provisions for enhancing the fish-wildlife-recreation values.

The 1977 Corps of Engineers' "Review Report for Water Resources Development, Missouri River-South Dakota, Nebraska, North Dakota, Montana" again addressed the potential for extension of the navigation project. This was stimulated by farmers and grain buyers who sought lower transportation costs for their goods, as well as interest in transporting the vast lignite coal deposits in North Dakota, Montana, and Wyoming. This study reexamined two routes for extending navigation above Gavins Point Dam. followed the Missouri River using three alternative locations as the head of navigation-Chamberlain, South Dakota (below Big Bend Dam), near the mouth of the Yellowstone River (upper Lake Sakakawea), and Fort Benton, Montana. The second route was from the mouth of the James River to near Jamestown, North Dakota, west to Lake Sakakawea, and then the Missouri River route to Fort Benton, Montana. For the Missouri the study envisioned 13 locks at the six mainstem dams (one each at Gavins Point and Big Bend, two at Fort Randal, and three each at Oahe, Garrison, and Fort Peck), six locks and dams would be required between the lower five dams, and 16 locks and dams would be required above Lake Sakakawea. The James River route to Lake Sakakawea would have required 14 locks and dams. According to the Corps of Engineers the pronavigation bias adopted in the analyses substantially overstated the true capacity of alternative additions to the existing project and understated their costs. Even with extremely optimistic considerations each of the alternatives lacked economic justifica-The benefit-cost ratio on the Missouri River route from Sioux City to Chamberlain was 0.61, to the Yellowstone River was 0.08, and to Fort Benton was 0.18. Using the James River route, the benefit-cost ratio was 0.15 to the Yellowstone River and 0.22 to Fort Benton. The report indicated that a major impediment to extension of the navigation project is the expense of locking facilities needed to get past the mainstem dams. The Corps' feasibility study utilized 1976 statistics. Large coal reserves identified in the Northern Great Plains Resources Program Report were used as the major source of traffic in the Corps' analysis. Benefits were taken to be the savings made by barge shipments compared to rail. The Corps' feasibility study failed to take into account all of the primary and secondary benefits of a barge transportation system.

One example of utilization of other methods to navigate a river transportation system with dams was the transshipment of Tennessee River traffic during the Wheeler Lock outage of 1961 and 1962. A study of the undertaking was accomplished by the Tennessee Valley Authority, Division of Navigation Development, Navigation Engineering Branch, and reported in Octioer 1912. During the lock outage, 1,525 barge loads were transferred by facilities installed at the dam. The shipments consisted of about 1.4 million tons of grain and grain products, including soybeans, 255,000 tons of

- 4. "1976 Iowa Barge Terminal Study, General Summary," Iowa Department of Transportation, River Transportation Division.
- 5. "River Transportation in Iowa," May 1978, Iowa Department of Transportation, River Transportation Division.
- 6. "Missouri River Preservation and Development Project," July 1978, Siouxland Interstate Metropolitan Planning Council.
- 7. "Analysis and Assessment of Historical and Projected Traffic and Delay at Existing Lock and Dam No. 26, Missouri River," prepared for the American Waterways Operators, Inc., September 1979, prepared by Peat, Marwick, Mitchell, and Co.
- 8. "The Effects of Inland Navigation User Charges on Barge Transportation of Wheat," 1978, prepared by the Virginia Polytechnic Institute and State University for the Office of Water Research and Technology (U.S. Department of Commerce, National Technical Information Service).
- 9. "Transportation Today: An Introduction to Issues in the System," January 1979, North Dakota State Highway Department.
- 10. "1979 North Dakota Highway Statistics," prepared by Transportation Services Division, North Dakota State Highway Department.
- 11. "Agricultural Trade in the South Dakota Transportation System: Highlights of Papers Presented at 17th Agri-Business Day," March 27, 1979, prepared by the Economics Department, Agricultural Experiment Station, South Dakota State University.
- 12. "North Dakota Grain-Oil Seed Transportation Statistics, 1978-79," prepared by the Upper Great Flains Transportation Institute, North Dakota State University.
- 13. "Grain Transportation Problems in Nebraska-Causes and Cures," Proceedings of the Nebraska Grain Transportation Seminar, December 1979.

METHODOLOGY:

The project objectives will be accomplished by the formation of a commission involving participating states from the Old West Region. The governor of each participating state will appoint two technical members to the commission. The governing body of the legislative service agency in each state (Legislative Council) will appoint two legislative members and two alternate legislative members to the commission. One technical representative will be chosen from a land grant college or university or a state agency and will be expected to have expertise related to the project. The other technical representative will be from private industry and will be expected to have knowledge or experience in barge transportation or expertise in the area of transportation, economics, or engineering. Each member of the commission will have one vote

purposes of project direction and administration. Alternates will have no vote unless sitting in the place of an absent legislative member.

Project direction and administration will be by majority vote of the commission members present and voting at commission meetings. The commission will meet at least quarterly. The commission will hire a project coordinator or supervisor who will be responsible to the commission. The project coordinator will be responsible for the day-to-day operation of the program, personnel matters, assignment of project tasks, accomplishment of project studies and evaluations, accomplishment of project objectives, and compilation of project reports. All decisions of the project coordinator, including contractual arrangements, will be subject to the review and approval of the commission. It is suggested that the commission be divided into subcommittees and assigned responsibility for monitoring the different project objectives.

The commission will engage, on a consulting basis, the necessary technical expertise from the faculties of participating state universities or land grant colleges, various state agencies of participating states, the Corps of Engineers, and private industry. The commission and project coordinator will make every effort to use the Corps of Engineers on a resource basis and as project liaison. The project will undoubtedly present some new and innovative technological requirements, making staff assignments and the scheduling of project tasks difficult. The project will require substantial contributions from engineers, architects, and economists, who will be the chief contributors, as well as from geographers, lawyers, fish and wildlife managers, barge operators, transportation specialists, energy specialists, and marketing specialists.

Planned activities are listed by specific tasks below:

Objective 1: Review and evaluate the characteristics of the Missouri River, with special emphasis on the upper Missouri from Fort Benton to Sioux City, to determine its physical capabilities for supporting a barge transportation system, including a determination of the cost of developing and maintaining the upper Missouri River system to make it compatible with the existing system below Sioux City.

A. Review and summarize Corps of Engineers' studies and other reports or studies in an effort to compile and summarize the literature available on the characteristics of the Missouri River and its capabilities for supporting a barge transportation system. This can be accomplished with expertise from either a state agency, university, or land grant college, or perhaps a graduate student. The Corps of Engineers will be a source of information and liaison for this task.

Compare the upper and lower Missouri River for a determination of the compatibility of existing physical systems and what needs to be done to facilitate a total efficient river system for transportation on the upper and lower Missouri River. Engineering expertise is required for this task. The Corps of Engineers will be considered the primary source of information and investigation for this task. Private industry and state agencies will also need to be consulted.

C. Study the specific physical capabilities of the river to determine what needs to be done, including channelization and straightening, to accommodate barge transportation on it. Engineering expertise will be required to accomplish this task. The Corps of Engineers, state agencies, and private industry should be involved.

Objective 1, including all three specific tasks, will begin immediately or early in the project, and should be accomplished within 12 months. This is necessary because many of the other project objectives will rely on the information obtained by its completion.

Objective 2: Identify and evaluate alternative techniques for navigating the upper Missouri River, overcoming the obstacles of the six mainstem dams, including alternatives other than locks.

Expertise necessary for this objective will include structural engineering, transportation design, agricultural products marketing, and barge transportation. The goal of this objective will be to utilize existing technologies to integrate existing transportation modes and facilities, where possible, and to develop new technologies, if necessary, to establish an efficient transportation system on the Missouri River.

This task will be accomplished by consultants with the required expertise. Consultants may include experts from private industry and state land grant colleges or universities. Information and assistance may be available from state agencies and the Corps of Engineers.

Progress reports will be very important during the accomplishment of this task to allow coordination of this objective with other project objectives. Work on this objective will begin immediately and should be completed in 12 to 18 months. It will be necessary for the accomplishment of this objective to identify the alternative, or alternatives, which seems to be most feasible and most appropriate for establishing an efficient transportation system on the Missouri River. New technology, if required, can then be integrated with a total system and evaluated to determine logistics, marketing, and economic feasibility.

Objective 3: Determine the logistical effects of barge traffic navigation on the Missouri River, including an investigation of

existing inland port facilities and planning for possible new facilities, transfer points, or depots which may be required by new systems for grain handling or movement of products.

The accomplishment of this objective will depend on the findings of Objective 2. Persons working on this objective will work in close cooperation with those working on Objective 2 (some of the personnel may be the same). Expertise necessary for this objective may be available from state agencies and colleges or universities, or from consultants in private industry or the Corps of Engineers.

The goal will be to evaluate logistical considerations based on the findings of Objective 2. This task should be accomplished within a six-month period and will not begin until work on Objective 2 is substantially completed. Specific tasks will include a study of possible locations for loading facilities, storage facilities, connecting transportation systems, and other necessary physical facilities to be used in conjunction with the operation of a navigation system. Expertise will be required with respect to transportation of agricultural products and other raw materials or natural resources logistics, marketing, engineering, and economics.

Objective 4: Determine the economic effects of navigation on the Missouri River, including the cost-benefit analysis of extending navigation to various points, as far as Fort Benton, utilizing both primary and secondary benefits. The accomplishments of this objective will depend upon the results of studies and evaluations from all the other project objectives, especially Objectives 2 and 3, and will require coordination of all project studies and evaluations. The goal will be to identify and consider all of the primary and secondary benefits and all of the primary and secondary costs that may be realized by the project for the alternatives identified as potentially feasible.

Specific tasks for this objective will not begin until the second year of the project, will be accelerated in the second quarter, and will be completed before the last quarter of that year. Necessary expertise, in the area of economics, statistics, and accounting, will be contracted for on an independent consulting basis. The work on specific tasks will necessarily be coordinated with and based on the work done on all other project objectives.

Objective 5: Review and evaluate the existing marketing scheme for the region for products which hold potential for transportation by barge, identify new markets which may result because of further development of Missouri River transportation, especially the upper Missouri, identify marketing options which will maintain integrity of products throughout the transportation system, and seek the involvement of private industry and other sources of investment, finance, and marketing possibilities.

This objective will require expertise in marketing and economics. This expertise will be available on a consulting basis from state universities and land grant colleges, as well as private industry.

- One specific task will be to study and investigate the marketing patterns for raw materials and agricultural products which may fit into the development of a comprehensive transportation system on the Missouri. Expertise available in the state of Nebraska (possibly land grant colleges or universities) will be primarily responsible for this task. The cooperation and assistance of expertise from other states in the lower Missouri region will be necessary.
- B. The second task will be to study and identify marketing possibilities which will result from further development of transportation on the Missouri, especially the upper Missouri. This task will be accomplished by expertise available in all the participating states (expertise from the land grant colleges and universities may be most helpful). North Dakota and Nebraska will be the lead states. Cooperation from private industry and agencies such as the Upper Great Plains Transportation Institute will be necessary.
- C. The third task will be to identify and study products to be marketed in the transportation system, with special emphasis on maintaining integrity of products and identifying upstream marketing possibilities for the Missouri River. Producer groups and other interest groups, as well as the American Waterways Operators and the Upper Missouri River Basin Commission, will be sources of expertise for this marketing task.
- D. The fourth task will be to identify possibilities for financial investment, especially private industry involvement in the marketing options that may be available with development of the Missouri River as a comprehensive transportation system. This task will be accomplished on a consulting basis and will involve substantially representatives of private industry.

This objective will begin in the second year of the project and will depend substantially upon the results of some of the other objective's studies and evaluations. This objective should require from six to 12 months to accomplish.

Objective 6: Identify and evaluate energy savings that may accrue because of the development and use of Missouri River transportation, and the resulting savings to other transportation systems.

- A. Part of this objective will be to identify the energy savings which may be available to the present modes of transportation by the development of a comprehensive transportation system on the Missouri River.
- B. A determination of the energy efficiency of a new system of transportation that is developed for the Missouri River system, whether including just barge transportation or coupled with other modes, will be made.

- C. The third part will be a determination of the energy cost differences using new systems as compared to using old systems of transportation, including costs to port destinations.
- D. Secondary energy savings, such as energy savings that may arise by use of inland ports or power plants, will also be investigated.

It is anticipated that this objective will depend a great deal on the alternative techniques identified for establishing a transportation system on the Missouri River. A further goal of this objective will be to obtain any federal, state, or regional funds which may be available for energy-related studies. This objective will be accomplished by consulting with the required experts available from either state agencies, state universities, or land grant colleges, or private industry. Work on some of the objective's tasks will begin immediately and the work will continue throughout the duration of the project.

Objective 7: Investigate the potential for an integrated transportation system which would couple existing transportation modes and an improved Missouri River transportation system into a workable intermodal system which will meet the current needs of the upper midwest as well as provide new options for marketing and economic development of the nation.

- A. One specific task will be to study and identify ways and means by which existing modes of regional and national transportation can be integrated with a Missouri River barge transportation system.
- B. A second task will be to show the regional and national advantages or disadvantages of establishing an integrated intermodal transportation system in the region.

The first task of this objective should begin immediately and continue for the duration of the project. The second part should begin in the second year of the project and continue until termination of the project. Expertise will be required on a consulting basis from either state agencies, private industry, or universities or land grant colleges.

QUALIFICATIONS OF PERSONNEL:

The project coordinator, who will be responsible for the day-to-day operation of the project, personnel matters, assignment of project tasks, monitoring of project contracts, accomplishment of project studies and evaluations, accomplishment of project objectives, and compilation of project reports, will be appointed by the commission. The project coordinator will be someone with a transportation related background, with a minimum of six years managerial experience, and background in either engineering, economics, planning, or some other project-related field of expertise.

REPORTING RESPONSIBILITY:

The project coordinator and the legislative members of the commission will be responsible for making preliminary project reports to the 1981 legislative sessions. The project coordinator and non-legislative members will be responsible for making preliminary reports to the governors of the participating states. The preliminary project report to the participating legislatures and the governors will be initial project output. These reports will include initial study evaluations and determinations made on those objectives of immediate undertaking. Progress reports will be published quarterly.

The project's goal will be a comprehensive final report discussing the project objectives and making recommendations based on various studies and evaluations completed. The report will be the basis for recommending continuation of the transportation project, including necessary construction, or for discontinuation. All project reports will be reviewed and approved by the commission.

BUDGET:

It is not possible at this time to present an exact detailed budget for the entire project, largely because much of the actual project work will be done on a consulting basis and will be contracted out to various private firms, educational institutions, and government agencies. The project will, however, require substantial expenditures for the operation of a commission, project staff, equipment, and printing.

The costs of the project will involve:

Salaries

	a.	Project coordinator - \$30,000 per year	60,000
	b.	Support staff (one clerical staff person) - \$9,300 per year	18,600
2.	Fringe benefits for personnel - \$8,000 per year		16,000
3.	Operating costs		
	a.	Office space rental - \$2,500	5,000
	b.	Telephone expense - \$4,000	8,000
4.	Expendable supplies (paper and other materials) - \$1,200		2,400
5.	Equipment rentals - \$5,000		10,000

6.	Trav	vel	
	a.	Project coordinator - \$12,000	24,000
	b.	Commission (maximum of 20 members for quarterly meetings and other travel) - \$30,000	60,000
7.	Indi	rect costs - \$10,000	20,000
8.	Printing costs (semi-annual progress reports, final report, and miscellaneous publications) - \$3,000		
9.	Cons	sulting fees (contracts for project work to project objectives)	260,000
ii ii	a. b. c. d. e. f.	Objective 1 - \$5,000 Objective 2 - \$100,000 Objective 3 - \$25,000 Objective 4 - \$75,000 Objective 5 - \$20,000 Objective 6 - \$15,000 Objective 7 - \$20,000	

\$490,000

Project Total

SUBCOMMITTEE ON MISSOURI RIVER BARGE TRAFFIC of the AGRICULTURE TASK FORCE of the MIDWESTERN CONFERENCE OF THE COUNCIL OF STATE GOVERNMENTS

Hilton Airport Plaza Inn Kansas City, Missouri

September 17, 1980

AGENDA

I. The Navigability of the Missouri River

Lieutenant Colonel David Sapp, Deputy District Engineer, Kansas City District, Army Corps of Engineers

II. Expanding Utilization of the Missouri River for Moving Agricultural Commodities

Randy Moody, Director, Missouri River Marketing Office

- III. Presentation by Senator Kent Jones, North Dakota
 - IV. The Impact of Increased Barging on the Missouri River Upon the Agricultural Community

George Ross, Manager, Transportation Regulatory Affairs, Missouri Farmers' Association, Inc.

V. Business Meeting

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SENATE

AGRICULTURE AND SMALL BUSINESS COMMITTEE

DATE January 28, 1981 PLAC	CERoom 423-S	TIME 10:00 am
	GUEST LIST	
NAME	ADDRESS	ORGANIZATION
Robert Haces	Zuperq	TOOT
Susan Salurda	Topeki	KAOT
Folia Bly to	Manhatter	KEROO
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PROPOSED REPORTS OF STANDING COMMITTEES

MR. PRESIDENT:

Your committee on Agriculture and Small Business

Recommends that Senate Bill No. 29

"AN ACT concerning county fairs; exempting certain fair associations from certain capital requirements; amending K.S.A. 2-127 and repealing the existing section."

Be amended:

On page 1, following the enacting clause, by inserting a new section as follows:

"Section 1. K.S.A. 2-125 is hereby amended to read 2-125. For-the-purpose-of (a) As used in this act, the-words "fair association" or "association" shall-mean means a county fair incorporated as provided in this act; the-words "agricultural societies" shall-mean means other associations of citizens organized for the promotion of agriculture and kindred subjects: the-word "fair" shall-mean means a bona fide exhibition designed to promote education, and to encourage improvement agriculture, horticulture, livestock, poultry, dairy products, liberal arts, mechanical fabrics, fine arts, domestic economy, and 4-H club activities by offering premiums and rewards for the best exhibits thereof .- The -word; subject to the provisions of subsection (b). "fairground" shall-mean means a plot of land of not less than ten 10 acres owned or leased by a fair association. or county and used by the association or county primarily for fair purposes.

(b) The limitation in subsection (a) relating to the acreage required for a plot of land defined as a fairground does not apply to plots of land owned or leased and used for fair purposes by fair associations designated in subsection (b) of K.S.A. 2-127, as amended.";

By renumbering sections 1, 2 and 3 as sections 2, 3 and 4, respectively;

On page 2, in line 57, after "K.S.A.", by inserting "2-125 and"; also in line 57, by striking "is" and inserting in lieu thereof "are";

In the title, in line 18, after "K.S.A.", by inserting "2-125 and"; in line 19, by striking "section" and inserting in lieu thereof "sections";

And the bill be passed as amended.

	200
	Chairperson
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(b) The limitation in subsection (a) relating to the acreage required for a plot of land defined as a fairground does not apply to plots of land owned or leased and used for fair purposes by fair associations located in counties designated in subsection (b) (1) of K.S.A. 2-127, as amended.";

By renumbering sections I, 2 and 3 as sections 2, 3 and 4, respectively;

On page 2, in line 57, after "K.S.A.", by inserting "2-125 and"; also in line 57, by striking "is" and inserting in lieu thereof "are";

In the title, in line 18, after "K.S.A.", by inserting "2-125 and"; in line 19, by striking "section" and inserting in lieu thereof "sections";

And the bill be passed as amended.

_Chairperson