I feel that the fluctuations in the water level of the river have added to the problems of erosion.

The dams along the Missouri have saved millions of dollars in flood control. However, this work of conservation is not completed and will not be completed until this problem is solved. There is urgency in seeking and applying a solution.

STATEMENT BY ANDREW MORK, CHAIRMAN, MORTON COUNTY WATER MANAGEMENT BOARD, PRESIDENT, NORTH DAKOTA ASSOCIATION OF SOIL CONSERVATION DIS-TRICTS, IN SUPPORT OF H.R. 3402, JUNE 20, 1968

Mr. Chairman, my name is Andrew Mork, and I am a farmer-rancher from Mandan, North Dakota. I am also Chairman of the Morton County Water Management Board and President of the North Dakota Association of Soil Conservation Districts.

My farm is located on the Missouri River Bottoms, North of Mandan. My father moved my family here in 1930 and except for my college years and three years of other employment thereafter. I have resided here ever since. In these years I have played in and on the River, ran from it in flood time and pumped from it to irrigate my fields. The Garrison Dam built 50 miles north of Mandan was closed in 1952. This means I have spent 22 years in intimate contact with the River in its natural or wild state and 16 years with it in its present controlled

state. Consequently, I feel that I know the River well.

The Missouri, like any other alluvial river, did in its natural state erode its banks and over the centuries has changed its course. But this was a relatively slow process. For example, I can substantiate that my land is at least 200 years old. Elmer Worthington, Forester for the North Dakota Soil Conservation Service, believes that the largest tree in North Dakota is a 250 year old Cottonwood on the Missouri Bottoms near Sanger, North Dakota. The flow of the Missouri in winter was invariably low permitting the banks to freeze deeply. This protected them during the sudden spring floodtime. The only other high river stage occurred during mid-summer when the snow melt from the Montana and Wyoming mountains flowed through. At this time the River carried its maximum silt load and if there was erosion there was also land building when the turbid water slowed by the willows dropped its load of silt. The slow erosion and corresponding accretion kept our total acreage of bottomland constant.

After the closure of the Dam, the water is being released at a time and in quantities most favorable to power generation and downstream navigation. The characteristics of the River has abruptly and completely changed. True, we now have protection from severe flooding but we find ourselves in a position of a man just saved from acute appendicitis only to find that he has a terminal cancer! The "Cancer" is the accelerated river bank erosion caused by the clear water now released by the Dam. High wintertime water releases necessitated by high power demands cause erosion to occur in the winter in addition to the other seasons. The clear water has the ability to carry away the finer, lighter particles of the eroded banks. The heavier soil particles, the sand and fine gravel are redeposited as sand bars. These sand bars are therefore much harder than before and resist further erosion. This in effect doubles the erosion pressure on

the mainland and is another basic cause of our emergency conditions today.

On my river front I am losing approximately 50 feet of land per year. This is on a straight flowing stretch of the river—on the curves the rate is much higher. It is extremely difficult to operate an irrigation system under these conditions. Obviously, all my land will soon disappear if this situation is allowed to continue.

It is obvious to us who know the River that our problem is caused by the operation of the large federal dam above us. Therefore, it seems only reasonable that construction and maintenance of suitable bank protective works should also be a federal obligation. To do less can only be construed to be an offense against the landowners of our valley.

In the years since our problem has become apparent, a great many state and regional organizations, as well as every session of our North Dakota legislature, have adopted resolutions directed to the Corps of Engineers or the United States Congress asking the river bank protective works. In fact, a collection of these resolutions would by themselves testify to the gravity of our situation and the need for immediate action.

Due to the Vietnam War, I know Congress must reduce their expenditures and many worthwhile federal projects must wait. However, I hope Congress will realize this is an emergency and that tomorrow will be too late. Immediate action is necessary to prevent losses which can never be restored.