

STATEMENT OF GEORGE J. TOMAN REPRESENTING THE CITY OF MANDAN, N. DAK.,
CONCERNING MISSOURI RIVER BANK STABILIZATION AT MANDAN, BISMARCK,
N. DAK., JUNE 20, 1968

H.R. 3402, A BILL TO MODIFY THE COMPREHENSIVE PLAN FOR MISSOURI RIVER BASIN
WITH RESPECT TO CERTAIN BANK PROTECTION AND RECTIFICATION WORKS

My name is George J. Toman, Consulting Engineer serving as City Engineer for the City of Mandan, North Dakota. First, I request that my written statement be accepted for file and inclusion in the record.

I am well acquainted with the performance and capabilities of the Missouri River, having been born on a homestead less than 1000 yards from its banks at Ft. Clark, N.D., and spending most of my life since then observing and working with cause and effect of the stream behaviors. It was my privilege in 1926 and 1928 to be part of the State Engineer field forces that undertook the first field studies for Missouri River Diversion evaluation. Subsequent thereto my formal education and duties have guided my observations and enriched my experiences.

Among my commissions have been included intake structures on the Missouri, flood protective works on the flood plains, and most recently a sewage treatment facility discharging into the Missouri River. This latter project cost slightly over \$840,000, of which amount the Federal Water Pollution Control Administration of the Department of Interior granted \$232,000. The outfall line and the aeration ponds are located on the flood plains of the Missouri River and the Heart River, which has its confluence with the Missouri River two miles southwest of the treatment site.

The outfall line is 4,000 feet long and it empties into the Missouri River on the right bank. This arrangement was approved by the Omaha District, Corps of Engineers. During the course of construction in the fall of 1966 (November) the erosion was so rapid that emergency measures had to be instituted to preserve the outfall end. This was done by driving piling and anchoring the outfall end by mass concrete headwalls at considerable increase in costs.

The northerly impoundments of the Oahe Reservoir reach within three miles of the outfall site. Manipulations of flows from the Garrison Reservoir ranging from 30,000 second feet to zero flow create abnormal bank erosions and channel changes. These influences have varied from the bank cutting actions and erosions of the fall of 1966 to the present sand-bar block that has built up this spring.

The proposed work as outlined by representatives of the Corps of Engineers, Omaha District, will alleviate and correct the present deteriorating conditions. This work will also stabilize the outfall site to permit better hydraulic discharge characteristics.

Time is of the essence in this matter since upstream deterioration observed from the present outfall site on 9 April 1968 and again on 4 May 1968 indicate that the present river flow will again begin its eroding action on a line that will cut behind (bank side) the head walls. When this happens, as it surely will under present conditions, the head wall and anchor wall will disappear. The outfall line will become inoperative, interfering with the orderly discharge of the treated sewage effluent. Such a catastrophe will result in the flooding of crop lands with sewage effluent.

The practicability of the work as outlined by the Corps of Engineers has been demonstrated in other reaches of the Missouri River, particularly around Sioux City, Iowa; Omaha, Nebraska; and Kansas City, Missouri.

The City of Mandan has passed a resolution indicating its willingness to assume the responsibilities normally and traditionally associated with the maintenance and operation of the facilities.

The undersigned is particularly grateful for the invitation extended by your Chairman to appear before this Committee. We in Mandan feel keenly about the need and early implementation of the proposed corrective and protective works.

STATEMENT BY ROBERT BAIN, PARK BOARD COMMISSIONER FROM BISMARCK,
N. DAK., JUNE 20, 1968

Mr. Chairman, Members of the Committee, for several years the land owners along the Missouri River in Section seven, Range 80, Township 138 have been concerned about the erosion taking place on their property. Many methods have been tried to stop this erosion to no avail. They have hauled in old car bodies rock, concrete, and any other material that might stop the erosion.