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## Letter from L. N. McClellan to H. L. Hille Regarding Flood Protection, Land Purchase, Undated

L. N. McClellan

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Colonel H. L. Hille, District Engineer Corps of Engineers United States Army Garrison District Fort Lincoln, Box 300 Bismarck, North Dakota

## Dear Colonel Hille:

Your letter of December 5, 1953, to Mr. Kenneth Vennon, Regional Director, concerning your proposed report on protective works in the Williston Area of the Garrison Reservoir together with pertinent data has been referred to me for comment. Because of the short time available for my review,(I understand that the Bureau of Reclamation's comments are required before January 15, 1954), I have not been able to consider your proposal in detail. However, I do believe that your organization and mine should be able to adjust any differences in formulating an operating agreement for the Buford-Trenton area within your cost estimate of \$4,632,000.

It does not appear to me that an expenditure of \$4,632,000 for the protection of 2,640 acres of the East Bottom area of the Buford-Trenton Project can economically be justified for the apparent hazard introduced by the construction of Garrison Reservoir. The occasions when a normal flood of 250,000 cfs are experienced on top of a full flood-control poci must be exceedingly rare and the increase in damage produced by a raise in water surface of 3 or 4 feet above that resulting from similar flows if the Garrison Reservoir did not exist could hardly be so great as to warrant this large expenditure.

The gradual rise in river level due to aggradation would of course increase the flood hazard, but since this will develop slowly it would appear desirable to defer construction of protective works, excepting the area where the river is active by cutting, for a number of years until it is apparent that aggradation has proceeded to a point where the flood threat is apparent.

As an alternative, I would think that the practice we follow of purchase and lease of areas in the potential flood-control pool would be a far more economical and equitable solution to this problem.

If there are other factors of which I have not been made aware that justify your proposal, I believe that a more equitable adjustment is in order between the flood hazard from from the main stream and that from side drainage. It appears from your report that whereas the land in the East Bottom is protected from main stream flooding by flows of a frequency probably smaller than once in 100 years, damage to the area by flows occurring less frequently than once in 10 years from side drainage is enhanced in the project area. The increase in cost to provide as a minimum culvert capacity through the dikes capable of handling a 100 year flood run-off from the drainage area adjacent to the project lands, appears to be amply justified.

I note that the engineering treatment shown in your plans differs considerably from that customarily followed by my organization, being more extensive for some features than we think necessary and less conservative in others. Recognizing that these plans are pre liminary in nature I believe that these differences can quite easily be adjusted through further conferences in the development of a formal agreement after the more fundamental differences are resolved.

## Sincerely yours,

Blind to: Commissioner L. N. McClellan, Assistant Commissioner and Chief Engineer Regional Director, Billings, Montana Supervising Engineer, Bismarck, North Dakota