

11 Market Place,
SPALDING.
15th May, 1940.

To the Chairman and Members of the River Welland

Catchment Board.

Mr Chairman, My Lords and Gentlemen,

I beg to report, as instructed, upon the condition of the Sea Bank to the North of the River Welland extending from its junction with the Old Roman Bank 15 chains below Fosdyke Bridge, to its junction with the closure wall at the Old Kirton Creek some 2 miles 34 chains below.

The bank in question is distant from the trained channel of the River Welland, 100 feet. At Samphire Hall 1 mile 78 chains below Fosdyke Bridge the distance has increased to 650 feet. From below this point the bank takes a northerly direction and then a North Westerly direction and at its lower end, as set out above it is half a mile from the River.

In order to arrive at a comparison I had to work out what would be an ideal height and section of bank to meet the needs for protection of lands enclosed. It was assumed that the highest blown tide would reach a height of 17 feet above Ordnance Datum (Liverpool). We have action under the influence of an Easterly or South Easterly gale would seem to point out the necessity for another 4 feet to be added to the above height, giving a total bank height of 21 feet above Ordnance Datum. The top width to give adequate strength would be 5 feet. Slopes would be $1\frac{1}{2}$ to 1 on the landward side and 3 to 1 on the Sea side.

This ideal section has been superimposed on drawings of surveyed sections of the present bank and the cost of repairing has thus been arrived at. It is calculated that 24,422,62 cu yards of spoil, obtainable from the marsh well in front of the bank, would be necessary. The getting, transport and trimming of this material, together with grassing would cost at least £2,500.

During the course of the Inspection and Survey special bad places were encountered as follows:-

- (a) 49 chains below Fosdyke: the back of the bank was very badly cut and was **very** steep.
- (b) 60 chains below Fosdyke: On a bend the back of the bank appeared to have been steepened to allow of the setting back of the Soke Dyke with a consequential gain to the adjacent field.
For the first 74 chains of bank the level was low, being 2 ft 6 ins to 3 feet below dimensions set out above. The proximity of a deep soke dyke must affect the stability of the bank.

