

Notes on Mr E.G.Taverner's Report to the River Welland Catchment Board on the River Glen and its Banks, so far as they would be affected by restricted pumping from Bourne South Fen.

Mr Chairman, My Lords & Gentlemen,

I have read Mr Taverner's Report on the above matter and find that upon the whole, the available data has been very fairly dealt with in arriving at his considered opinion.

One or two points, however appear to call for correction, or, at least, second thoughts.

On page 7 a sweeping statement is made that there is no fear of prolonged floods. Such conditions have been experienced in the past as is shown by records. A recent example occurred in the first three months of 1941; 6 floods occurred in this period. Five were above medium floods, while the last, in March of that year, was a major flood. On page 8. The failure of the Car Dyke Bank is mentioned. A recent survey shews that such failure is and was unlikely. Leakages have occurred in the past through leaky freshwater feeds, and overflowing has been experienced due to an obstruction near Thurlyby. These matters are being dealt with, at the request of the Bourne South Fen & Thurlyby Drainage Board, during the present works in the Dyke.

The main point for consideration, however, appears on page 10 of the Report and refers to the second full paragraph on that page. Mr Taverner dismisses the fact that future improvements in the River Welland may alter the results arrived at in his calculations. This general statement is misleading. From the same storm or weather conditions, a Glen flood has always preceded a flood in the River Welland up to the present time. Any synchronisation of flood conditions in the two Rivers would have the effect of lengthening the period of closure of the Glen Outfall Sluice doors. The consequent hold up would cause a flatter surface slope in the River Glen with a decrease in velocity and discharge. The flood periods in the two Rivers would be brought nearer together by improvements in the River Welland through and below Spalding, though the evil might be alleviated in part by the full benefit of the Outfall Improvement Works. A total remedy would be the enlargement of the Glen Outfall Sluice and the Channel above.

In conclusion, while not doubting the accuracy of the calculations leading to the conclusions arrived at in the Report, the Science of Hydraulics gives a widely different results with the same data, according to the formulae employed. This is especially so when many steps in the calculations have to be based upon assumptions.

Also, very little is said in the Report of the effects of pumping into the River Glen anywhere except at or near Tongue End, although it is quite possible that adverse effects are possible and probable further downstream.

Therefore, I respectfully suggest, in the interests of the Board, that any agreement to pump into the River Glen might have a Protection Clause, to cover any unforeseen effects in the River due ~~to~~ to necessary works of improvement in other parts of the Catchment Board's Area.

I am, Gentlemen,
Your obedient servant,