

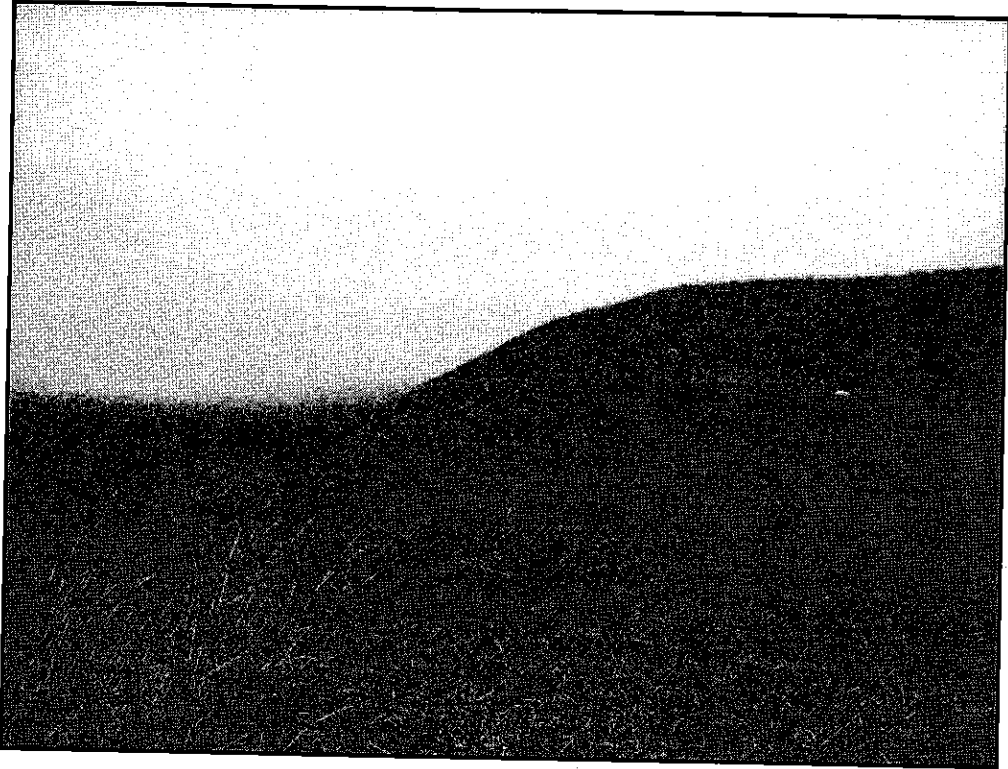
4 GENERAL

4.1 TIDAL SURGE 5 DECEMBER 2013

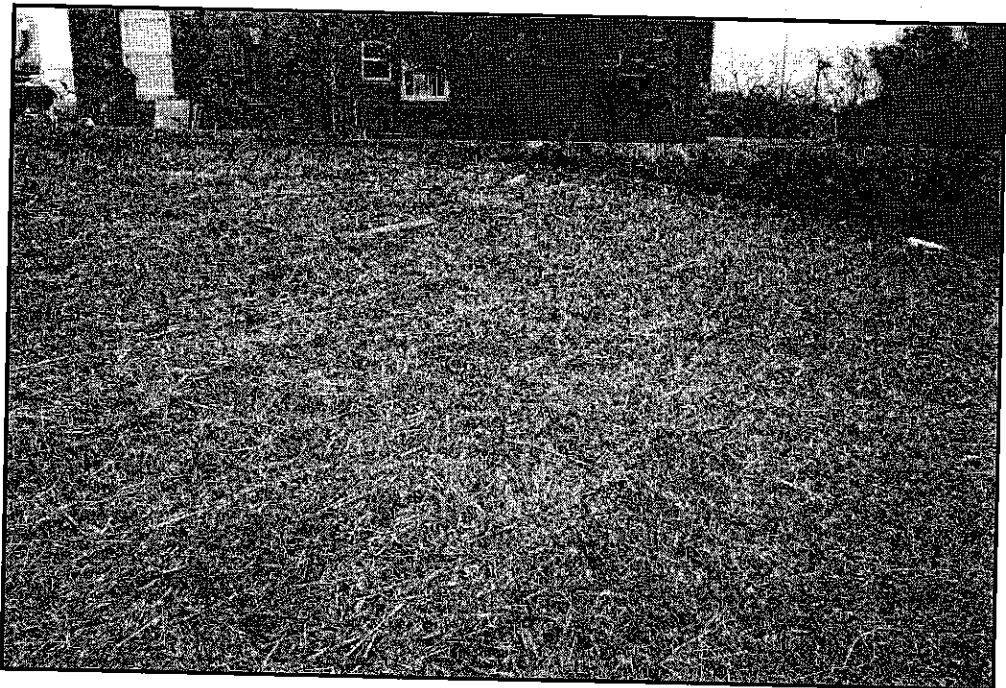
On the evening of 5 December 2013, the east coast of England experienced the worst tidal surge since January 1953. In preparation for this, during the day of the 5th all of the Board's second line sluices were closed, and all tidal pumping stations were isolated from the power supply. Fortunately, the South Holland Drainage District survived the surge relatively unscathed, especially compared with what occurred in other parts of the county. A small amount of water entered the catchment from the tidal Welland at Fosdyke Bridge, through a small gap between the wall and piling defences behind the Ship pub, and a comparison of the wrack levels after the event would suggest that the bank level around the bridge is generally low compared with the other bank along our coastal frontage, and parts of Sutton Bridge were affected by water coming up the highways drainage systems due to flaps not closing on the outfalls in the tidal Nene. Sutton Bridge Sluice was cut off for a period at high tide as the road in from both directions was flooded by water from the Nene, the road being situated on the tidal side of the defence bank. The water level at Sutton Bridge Sluice itself came within 150mm of overtopping the concrete slab where the control building is situated. It became evident after the event that water may have found its way under the slab and in to the South Holland Main Drain as a void was discovered beneath the concrete which has now been temporarily filled with sand bags. This has highlighted the vulnerability of the sluice and its control building with respect to tidal levels, and it is certainly a weak point that the Board should consider rectifying in conjunction with the Environment Agency. Elsewhere along the Board's tidal frontage the tide peaked well below bank crest level as can be seen from the photographs below. Further up the coast, breaches and overtopping occurred at Wyberton Marsh, Friskney/Wrangle, and of course Boston where a large number of properties were affected.



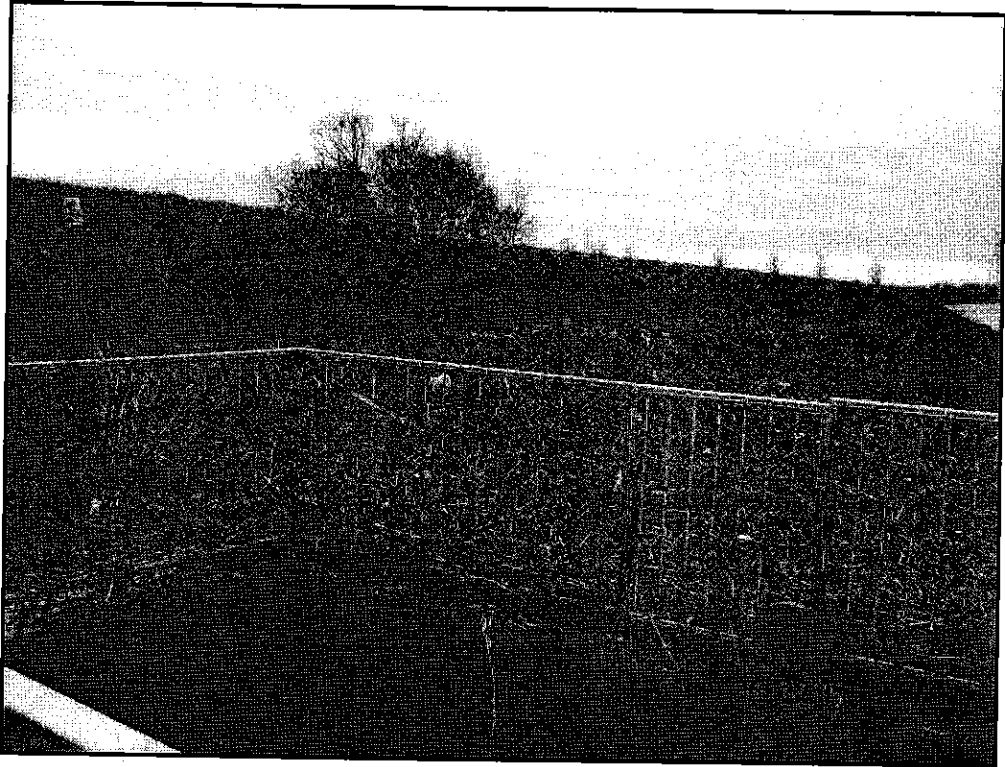
The flooded road alongside the River Nene between Tydd Gote and Sutton Bridge Sluice as the tide was receding on the evening of 5 December.



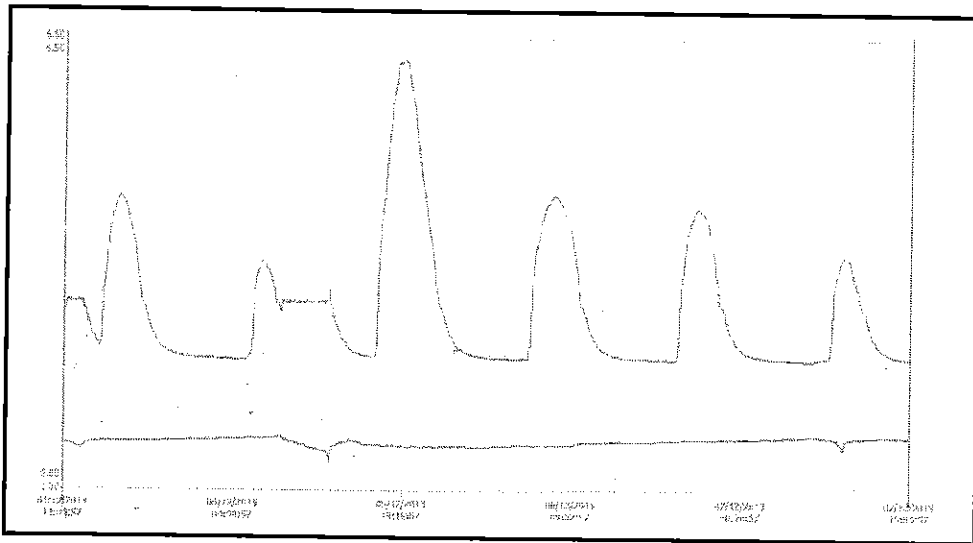
The wrack mark on the tidal bank of the River Welland at Holbeach River Outfall.



The wrack mark behind the house next to Fosdyke Bridge on the tidal Welland. The water came close to coming over at this point, and did in fact find its way through a small gap in the defence behind the Ship pub a short distance downstream from this photograph. (Photograph courtesy of the Environment Agency).



The wrack mark on the tidal bank of the River Welland at Lords Drain Outfall.



An extract from the telemetry trend data for Lawyers Pumping Station showing the tidal surge of 5 December 2013. The predicted astronomical high tide for West Lighthouse on the River Nene on the evening of 5 December was 4.12m ODN at 1939hrs, the tidal level actually peaked at 6.19m ODN at 1929hrs at Lawyers outfall on the outmarsh, and 6.24m ODN at 1952hrs at Lords Drain outfall in the River Welland.