

Flood Investigation Report

Albert Road – Deal
Dover

**Kent
County
Council**
kent.gov.uk



As the Lead Local Flood Authority for Kent, the County Council has a duty to investigate flood incidents as detailed within **Section 19** of the **Flood and Water Management Act 2010**:

A flood event occurred on 21st May 2014 at Albert Road, Deal. The flood event caused damage to 22 properties.

Date of Incident:	21 st May 2014	Date of Investigation:	22 nd May - 11 th August 2014
--------------------------	---------------------------	-------------------------------	---

Site Location:	Albert Road, Deal
-----------------------	-------------------



Figure 1 Location plan

Summary of Extent & Impact:

On the 21st May 2014 it was reported to Kent County Council that Albert Road, Deal, shown in Figure 1 had flooded. Photo 1 shows the flooding that was experienced.

The flooding followed a period of heavy rainfall and resulted in damage to properties on Albert Road and flooding on the road, estimated to be approximately 30cm deep. 22 properties were flooded internally, and damage was reported to vehicles.



Figure 2 Flooding at Albert Road on 21 May 2014

Cause:

There are two foul sewers under Albert Road. Foul sewers carry foul sewage to a sewage treatment works. Foul sewers usually also carry surface water as well as they are often in areas where the sewer was used to carry both foul sewage and surface water.

In Albert Road the sewers flow under gravity to the pumping station on Golf Road, where the sewage is pumped to the sewage treatment works at Weatherlees Hill near Sandwich.

These sewers can be seen on Figure 3. A foul sewer flows from the south under Albert Road from the junction of Middle Deal Road, this sewer is 825mm. This sewer splits in two along Albert Road and one of these is joined by another sewer from Bridgeside. The two foul sewers continue under the railway line to Golf Road, they are 1200 mm and 450 mm in diameter.

There is also a separate surface water sewer in Albert Road that collects the surface water runoff from a rainstorm event via the gullies in Albert Road and discharges to the ditch at the back of Matthews Close. The surface water sewer is 450 mm in diameter.



Figure 3 Albert Road sewers

An unexpected electrical fault at the Golf Road pumping station resulted in the foul sewers backing up with the rainwater that was entering them and surcharging. Albert Road is the low point on the ground along these sewers and the excess water discharged there.

Once the water discharged onto the road there it was unable to escape quickly enough. The surface water sewer, which was already carrying the surface water from Albert Road, does not have the capacity to carry the water surcharging from the foul sewers, due to the difference in their sizes (nor is the surface water sewer intended to provide back-up in this eventuality).

Drainage Assets:

Southern Water Services own and is responsible for the maintenance of the surface water and foul sewers located in the vicinity of Albert Road and the foul water pumping station located on Golf Road.

Southern Water has undertaken a survey of these systems since the flooding and has reported that the pumping station failed due to an electrical fault. They have also found that there was silt and debris in their sewer, which they have removed.

Kent County Council (KCC) is responsible for the maintenance of the road drains and connections to the surface water sewer located on Albert Road. KCC has undertaken a survey of the road drains and found these to be clear and working properly. The road drains have been cleared of the foul effluent from the flooding.

The surface water sewer discharges into the ditch at the rear of Matthews Close which flows into the network of drains and ditches on the marshes. Dover District Council are responsible for the maintenance of the ditch, KCC is responsible for the maintenance of the culvert.

KCC has inspected this ditch and the culvert and found them to be working properly. Work was being undertaken at the time of the flooding to improve this ditch. These works were not found to have caused any problems. A further explanation of these works is given below.

Catchment Area:

Albert Road is located to the north-west of Deal town centre. Topographically the area of flood risk is at a low point and overland flow from the south is trapped by the railway embankment. The properties on Albert Road do not have basements.

There is an area of marshes to the north west of this part of Deal. This area has a number of ditches, drains and rivers to manage water levels. Some of these watercourses are main rivers, which are managed by the Environment Agency. The other watercourses are known as ordinary watercourses, these are the responsibility of the neighbouring landowners. The River Stour Internal Drainage Board oversees watercourses within its district, some of these ordinary watercourses it adopts and provides maintenance for. Figure 4 shows the main rivers, the area of the River Stour IDB and the watercourses they provide maintenance for.

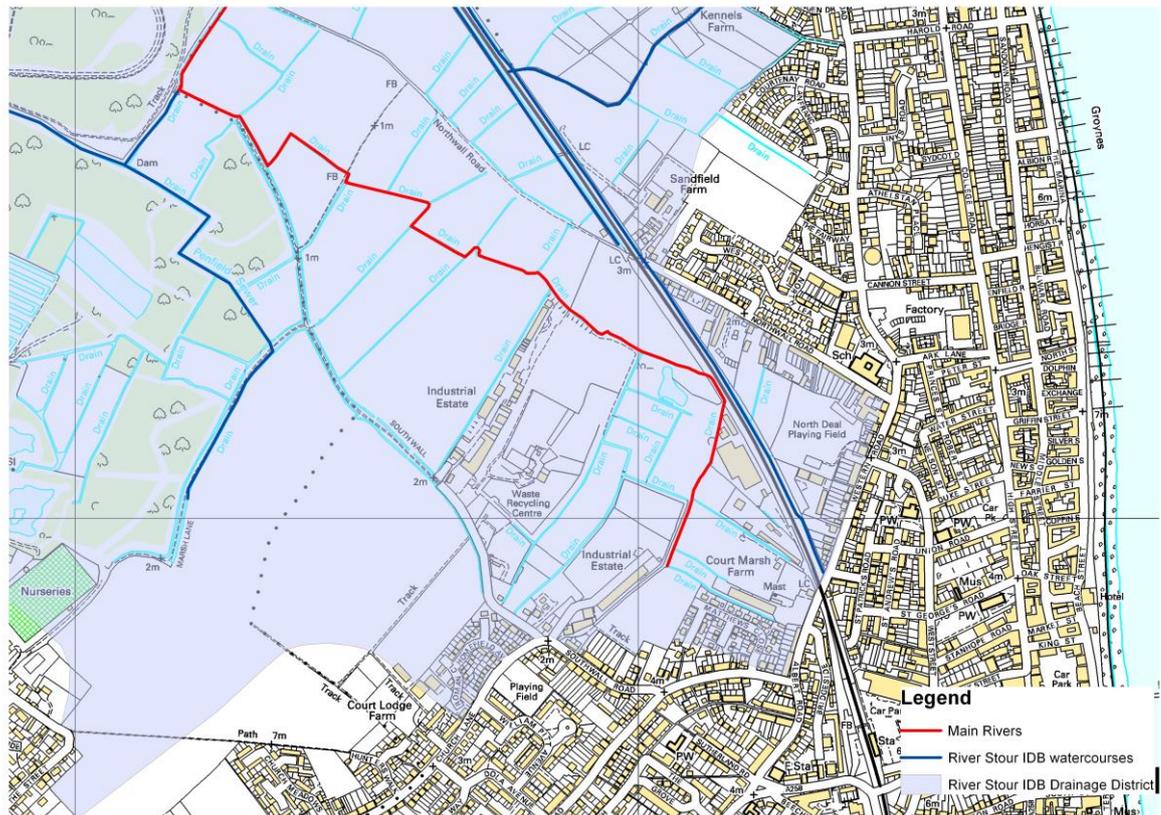


Figure 4 River and drains near Deal

The ditch at the back of Matthews Close is an ordinary watercourse and part of this system. There has recently been work undertaken by the River Stour Countryside Management Partnership to improve this ditch.

The ditch is open at the Albert Road end and then flows into a culvert. There is an opening for the surface water sewers in Matthews Close to discharge into the ditch and then it is culverted again to the Penfield Sewer, a main river.

The proposed works are to provide an open ditch that runs parallel to the culvert. This will provide increased capacity in the ditch and an improved local environment. At the time of the flood the works had commenced but not been completed. These works did not prevent the culvert from functioning and inspection of the culvert has shown that it was working properly.

The improvement works are to be completed, which will include widening the ditch, which could not be done initially as the building on the site next door prevented it, and planting the area.

Once this has been completed the River Stour IDB will be invited to adopt the watercourse to maintain it.

Historical Information:	There have been several previous flooding events reported on Albert Road in 1973, 1979, 1988, 2005 2006, June 2007, January 2008, November 2009, August 2010 and December 2013.
Responsible Bodies:	<p>Southern Water Services own and is responsible for the maintenance of the surface water and foul sewers located in the vicinity of Albert Road. They also own and maintain the foul water pumping station located on Golf Road.</p> <p>Kent County Council is responsible for the maintenance of the road drains and connections to the surface water sewer located on Albert Road.</p> <p>Dover District Council is responsible for the maintenance of the open ditch located to the rear of Matthews Close. Kent County Council is responsible for the maintenance of the culvert in this ditch.</p> <p>Kent County Council has no legal duty or authority to require Southern Water Services to repair, renew or enhance any part of their infrastructure.</p>
Recommended Actions:	<p>All drainage assets should be regularly checked and maintained by the responsible party (outlined above).</p> <p>Southern Water Services should investigate the cause of the electrical fault which resulted in the failure of the pumping station and take appropriate steps to minimise the likelihood of such a fault recurring.</p> <p>The works to the ditch at the rear of Matthews Close should be completed.</p>
Next Steps:	Kent County Council will circulate this flood investigation to all relevant stakeholders and publish this document online at www.kent.gov.uk .