

## **Flooding Event Elford– 16/02/2020 (2)**

There was a moderate flooding event in Elford as storm Dennis hit the country. The problem began with a blockage at the inlet end of the culvert under The Beck forcing water out of the brook course called the Green Brook and onto the road adjacent to No 61 The Beck. This flow gradually increased as less and less water appeared to be flowing through the eastern end of the culvert.

There were signs that water was re-entering the culvert via the gullies once past No 55 The Beck but the flows exceeded the capacity of the first gully draining the road and water continued to build up. Due to a significant number of blocked gullies particularly on the south side of The Beck the displaced water continued to flow along The Beck and beyond the closed Working Men's Club. The depth continued to increase as the flows exceeded the capacity of the operational gullies to return the water from the road to the culvert.

The Environment Agency was notified at about 8.30am and were on site within the hour with a team to assess the blockage problem and engineers to assess the pump situation. The Pumping Station was operational at all times but due to the impeded flow of the water it was unable to run continually without further manual intervention by the EA. The issue related to the inability of displaced storm water to get to the pump. As time passed the flooding situation got significantly worse as a result of an increasing flow on the Green Brook.

At the start of the event the Green Brook was discharging to the river by gravity with the penstock at the PS open. As the event developed the rising river levels dictated that the penstock closed and we were dependent on the pumping capacity of the PS and a support 6" pump that had arrived on site to keep the village clear of flood water from the Green Brook. It was clear that the operation of the PS was impeded by the blocked flow in the culvert and the blocked gullies preventing the water on the road returning to the culvert in sufficient quantity to allow the PS to run efficiently. The PS is difficult to run at the best of times due to its constrained size and depth but with the added restraint to the quantity of feed water it required great skill and sound judgement to keep the pump from switching itself off due to lack of water. Once the more easily controlled support pump was connected the flooding was slowed significantly but over all flood levels were still increasing very gradually.

An irrigation pump provided by Ben Bridgen was also installed to pump water closer to the PS and then the increase in flooding was stopped and reversed albeit also very slowly. A second 8" support pump arrived on site from the EA depot but was not used. It was retained on site as a precaution but by 6.00pm the flood was clearly under control and falling. The EA staff stayed on site until the late evening some still working at 10.00pm cleaning gullies and tidying up.

As a precaution flood guards had been fitted to the bungalows but in the event were not tested. The situation was under control once the PS and the support pump were in place and operating although if the first support pump had been an 8" pump things may have stabilized earlier. That said we are still very happy with the support we got once again from the EA which was exemplary being both timely and professional. Given the fact that the whole country was under stress, the local roads made moving around difficult and there was significant pressure on resources Elford again was well served by the EA. Thanks also to Ben Bridgen for providing extra pumping capacity a facility also

offered back at the last flood event in November 2019. It is good to see a community pull together and use all resources available to it.

As with all events there were lessons to learn and in this case a new and important one related to blockage management on the culvert and the gullies on The Beck. The gullies are far more than just road gullies they are a fundamental part of the mechanism related to successful operation of the Pumping Station once water is above ground and on the road. A review of the lessons learned will be undertaken and the Flood Plan updated and while we did not have to call on the Auxiliary Flood Wardens this time it was good to see them appearing offering help in any case and their company was welcome.

We hope to be getting the Highways people to ensure that all gullies on The Beck are clean and operational in future and we will attempt to ensure that all possibility of future blockages to the culvert are minimised. Thanks go to all involved particularly the EA staff, Ben Bridgen for his irrigation pump and the supervision of it and Gary Delderfield who controlled traffic and was present throughout the event to help as necessary.

We hope that as these events seem to be becoming a more regular feature of our changing weather patterns that we can continue to refine and develop a plan of action to ensure that we are as safe as we can be when these hiccups occur.