

Supplementary Report on Flooding in Selly Park South (13.12.2008)

This report supplements the earlier "Report and recommendations relating to the Severe Flood Event in Selly Park South on 6th September 2008".

The photographic images referred to in the report are to be found at:
<http://flickr.com/photos/jcweatherman/sets/72157611181257671/>

On the morning of Saturday 13th December the River Rea through Selly Park South and Stirchley was flowing at bankfull and in some places going marginally out of bank (see Image 4). This followed a period of sustained rainfall over the catchment from 18:00GMT the previous day, which continued to the middle of the day on Saturday 13th. Birmingham Selly Oak Weather Station recorded 19.2mm of rainfall between 09:00GMT on Friday 12th to 09:00GMT on Saturday 13th, all of this rain falling after 18:00GMT on the Friday. A further 4.8mm was recorded between 09:00GMT on the Saturday and 09:00GMT the following day. Most of this fell during Saturday morning. River and ground conditions on Saturday morning were very similar to those on the morning of 6th September, namely the river was flowing at bankfull and the ground was saturated with pools of water lying on the surface of the Pebble Mill Playing Fields and saturated overland flow occurring south of Dogpool Bridge (see Image 5).

This event provided a good opportunity to study and photograph the Rea and the adjacent land with the river running at bankfull. The winter season was also advantageous because of most trees and bushes being bare and much of the ground vegetation having died back, allowing much clearer views of the river and surrounding land to the south of Dogpool Lane Bridge.

At time of observation (around 10:30GMT) at peak discharge that day, the river level at Dogpool Bridge was just covering the temporary concrete supports beneath the bridge (see Image 1). This was approximately 0.75 metres higher than normal winter baseflow level, but substantially lower than the peak discharge level reached on Saturday 6th September (see Image 2). Measurements carried out on Sunday 14th December after river level had fallen back established the difference in peak levels of the two events at 1.2 metres (see Image 3).

Approximately 300 metres to the south of Dogpool Bridge (see Images 6 to 10) the vegetation on the western bank has been completely cleared by construction machinery from the new hospital site. It is assumed that this was done when the rainwater and surface water outfall pipe from the site was run to the river. (See Update on Flooding – Selly Oak Ward Committee 10/12/2008, Rea – Dogpool lane area, final paragraph). The work has caused slight lowering of the western bank, but the lowering is only slight. (This area was investigated in the days following the flood of 6th September, allowing the comparison to be made). What the clearance of the vegetation shows is how relatively easy it would be for the river to flow onto the open and unvegetated land of the new hospital site if the river level was higher than on the 13th December.

On Dogpool Lane it was observed that part of the car park of Leake's factory was flooded on the morning of 13th December (see Image 12). Closer investigation revealed that water was flowing from the saturated open and unvegetated land on the site of the new hospital into the car park, causing the flooding. Water in turn was flowing from the flooded car park onto the southern lane of the road, blocking most of that lane. Most drivers were driving around the large pool of floodwater; a few were driving through it at speed creating a watersplash (see Image 11).

Finally, the southern end of the service road running between the backs of the odd numbered properties in Cecil Road was investigated (see Images 13 & 14). The river level here was high but safely below bankfull. However a 1 metre increase in level would have been more than sufficient to take it out of bank. As at this point the bund protecting the service road and properties lowers

and becomes non-existent, a one metre increase in level would have flooded the northern end of the service road and the gardens and possibly even the rear of the houses at the southern end of Cecil Road. Any further increase in river level above this would endanger an increasing number of properties.

Conclusions of this investigation:

1. The evidence from 13th December strengthens my belief that the main route for river flooding on 6th September was as stated in my previous report, namely over the western bank adjacent to the new hospital site, over the open and unvegetated land on the site, into Leake's car park and factory site, out into Dogpool Lane and then to Fashoda Road and Cecil Road (see blue arrows on map, Image 15).
2. On 13th December had there been a substantial downpour of rain later in the morning, causing the river to rise an extra 1 metre or more, similar to the level of 6th September, the western bank would easily have been overtopped, river water would have followed a similar route again and there would have been a repeat of the flooding of properties in Fashoda Road and Cecil Road.
3. Therefore, urgent attention needs giving to raising the western bank to prevent this from happening again. Not only should the distress to residents of a repeat of flooding be avoided, it should also be kept in mind that many hundreds of thousands of pounds have already been spent on restoring the properties flooded on 6th September and repeat flooding would destroy all of this work with the consequent waste of money.
4. I now also believe that there is a secondary problem of surface floodwater (as distinct from river floodwater) coming from the saturated open and unvegetated land on the new hospital site.
5. Despite the statement in the Ward Committee report that "The highway drainage in the flooded area of Dogpool Lane..... has all been cleansed and tested", it is still not working properly.
6. Urgent attention needs to be given to extending the flood protection at the rear of Cecil Road to include the southern end of the service road.
7. The news that Dogpool Lane Bridge is to be replaced (implementation of project 2009/10) is extremely welcome, but urgent action is needed regarding Point 3 before then. If this in turn leads to the river level on the southern side of Dogpool Bridge becoming dangerously high in any future flood (because of the obstruction caused by the present bridge), then an emergency pumping operation should be considered to carry water by flexible hosing across Dogpool Lane and back into the river on the northern side of the bridge.

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15th December 2008.

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