

East Staffordshire Borough Council Strategic Flood Risk Assessment - Level 2 Report

Addendum

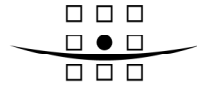
East Staffordshire Borough Council

October 2008

Final Report

9S8995

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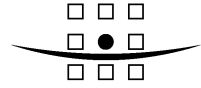
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1 INTRODUCTION

Following the submission of the Final Level 2 Strategic Flood Risk Assessment (SFRA) report, the Environment Agency replied with additional comments, as shown in Appendix A. Rather than re-writing and re-submitting the Final SFRA report, East Staffordshire Borough Council (hereafter referred to as 'the Council') requested the required alterations be included within an Addendum to the existing Final SFRA report. This report outlines these comments and the impact they have on the conclusions of the Level 2 SFRA. However, it must be noted that they are only applicable to the town of Burton upon Trent and do not affect the findings relating to the rest of the Borough of East Staffordshire.

2 ENVIRONMENT AGENCY COMMENTS

2.1 Point 1 – Alteration of the Title of Figure 5

The Environment Agency consider the current title of Figure 5 to be misleading as it does not specify that the flood extents shown only account for overtopping of the River Trent defences and do not include the flood risk from any of the ordinary watercourses flowing through Burton upon Trent. The title should be adjusted to read *'Burton upon Trent, River Trent Breach and Overtopping Scenarios and Development Sites*.

Figure 5 must therefore be observed in conjunction with the Environment Agency Flood Zones, Figure 2 and the watercourse-specific analysis of flood risk outlined in Section 3.4 of the Final SFRA Report.

2.2 Point 2 – Flood Routes from Branston Water Park

The Environment Agency would like the following paragraph to be included within Section 3 of the Level 2 SFRA report:

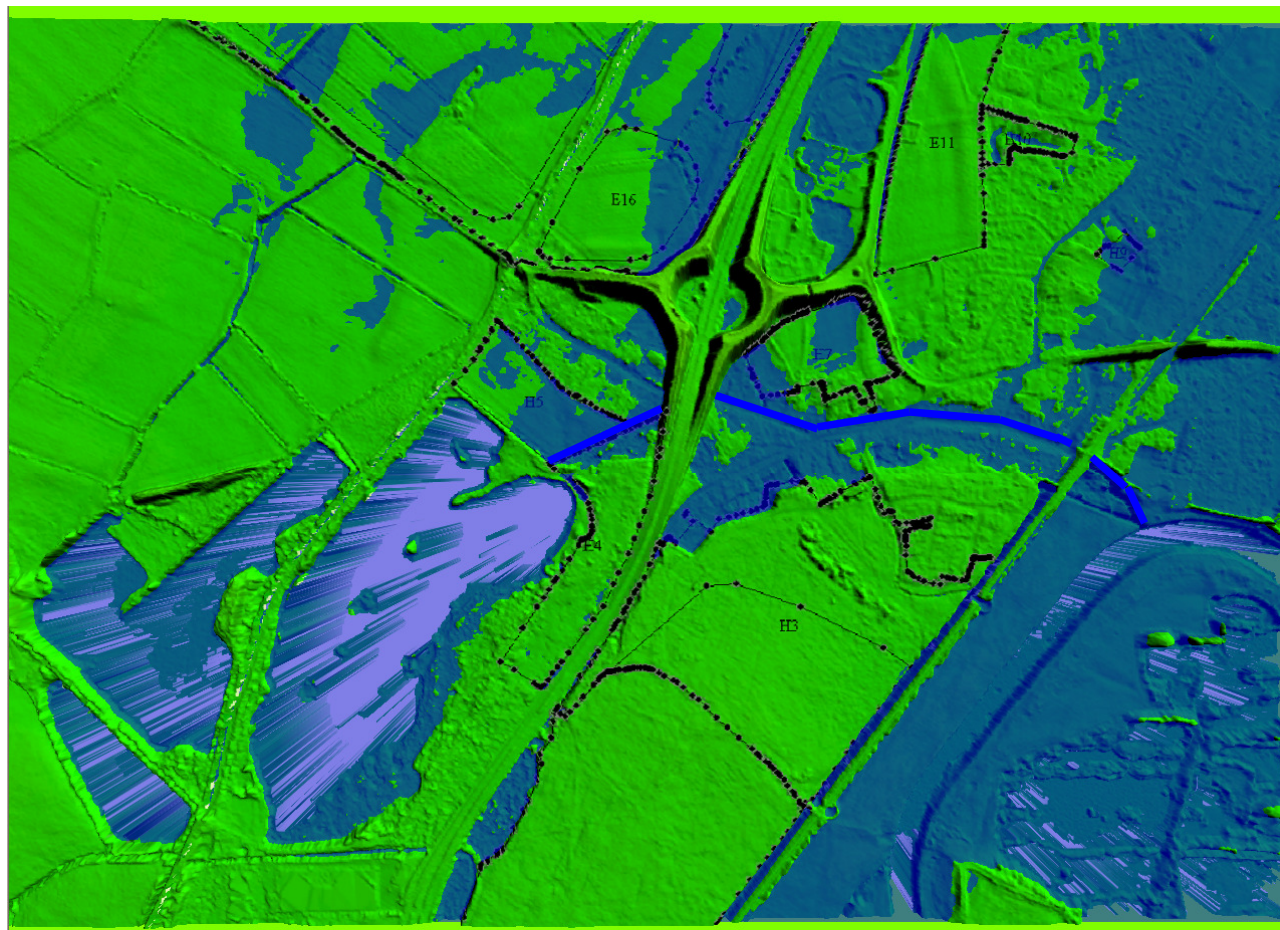
“The 1 in 100 year plus climate change event floods Branston Water Park, we would expect flows to cross site H5 and to pass beneath the A38 and flow towards Court Farm Lane and site H7, there is a drainage route in operation. Surface water from the catchment occupied by site H7 flows to the River Trent under gravity, when the river rises this flow is then pumped by an automated pumping station on Old Road, Branston. We would expect Court Lane and Old Road to flood, they lie at approximately 46.70 - 47.00m AOD. This area within the old Branston Village was originally protected by the Burton flood Defences, in 1932 the area had a recorded flood level of 47.57m AOD.”

The drainage route in operation from the Branston Water Park beneath the A38 was not previously identified by the Environment Agency and is too narrow to be observed on the LiDAR. It has therefore not been included in the TUFLOW modelling of Burton upon Trent. The Environment Agency is concerned about the potential flooding to the area if the outlet pump on Old Road failed and the drainage route backed up and overflowed as into the low-lying area of Branston Village. To simulate such an event and assess the potential extent of such flooding we have reviewed the LiDAR of the area and overlaid a water depth of 47.57m AOD, as recorded in the 1932 event.

Figure 2.1 below shows the area within Branston Village which lies below the 47.57m AOD flood level noted by the Environment Agency. The path of the drainage route from Branston Water Park to the River Trent is indicated by the thick blue line. This Figure indicates that parts of development sites H7 and H3 would be affected by such a flood, as would Court Lane and Old Road, as suggested above.

The extent of this flooding must be borne in mind when reviewing the development potential of sites H7 and H3 alongside the other flood risk maps, including both the Environment Agency's Flood Zones and the TUFLOW modelling, included within the Level 2 SFRA report.

Figure 2.1: Area of Branston Village Lying Below 46.57m AOD



2.3 Point 3 - Adjustment of Figures to Show the Potential Flooding of Branston Village

The Environment Agency has stated that they would like Figure 8 and other associated Figures to be adjusted to show the additional area mentioned in Section 2.2 above. Re-running of the TUFLOW models was beyond the scope of this Addendum report. The additional flood risk posed to development sites H3 and H7 due to the additional flow route underneath the A38, as outlined in Section 2.2 above must therefore be borne in mind when reviewing the following Figures in the Level 2 SFRA report:

- Figure 5: Burton upon Trent, River Trent Breach and Overtopping Scenarios and Development Sites;
- Figure 7: Flood Depth – 100 Year with Climate Change;
- Figure 8: Flood Depth – 1000 Year Present Day;
- Figure 9: Flood Depth – 1000 Year with Climate Change;
- Figure 11: Flood Hazard – 100 Year with Climate Change;
- Figure 12: Flood Hazard – 1000 Year Present Day; and
- Figure 13: Flood Hazard – 1000 Year with Climate Change

3 CONCLUSIONS

The most significant impact that the additional comments have the SFRA is the potential flood risk to development sites H3 and H7. The drainage route between Branston Water Park and the River Trent has not been factored into the TUFLOW models and must therefore be considered alongside the findings of the Level 2 SFRA report. Site specific flood risk assessments should consider this flood mechanism in great detail before development of these sites is progressed.

APPENDIX A
Environment Agency Correspondence

Dear Rachel Ranger,

**EAST STAFFORDSHIRE BOROUGH COUNCIL - STRATEGIC FLOOD RISK
ASSESSMENT**

LEVEL 2 – AUGUST 2008 – FINAL REPORT

I refer to the above document and your e-mail which was received today, 15 September 2008, concerning the above.

We have now reviewed the final report and wish to make the following comments, however in consideration of the Water Cycle Strategy Report, we have still not yet been consulted on this document.

In consideration of our response concerning the Draft Report, as set out in our letter of 1st May 2008, we are satisfied that all of our comments raised have been satisfied within this final report.

However, we wish to make the following further comments:

In consideration of Figure 5, this plan only refers to the River Trent. We strongly suggest that the title is altered slightly to read:

Burton upon Trent, River Trent Breach and Overtopping Scenarios and Development Sites.

We also require that the following information is shown within the report:

The 1 in 100 year plus climate change event floods Branston Water Park, we would expect flows to cross site H5 and to pass beneath the A38 and flow towards Court Farm Lane and site H7, there is a drainage route in operation. Surface water from the catchment occupied by site H7 flows to the River Trent under gravity, when the river rises this flow is then pumped by an automated pumping station on Old Road, Branston. We would expect Court Lane and Old Road to flood, they lie at approximately 46.70 - 47.00m AOD. This area within the old Branston Village was originally protected by the Burton flood Defences, in 1932 the area had a recorded flood level of 47.57m AOD

Map figure 8 should show this flooded area together with any other applicable maps. Page 27, 3.3.1.

If you wish to discuss any of the above please contact John Beckett, Technical Specialist, Tel. 01543 404900.

Yours sincerely

**Mr James Kitchen
Planning Liaison Team Leader**