
10682 Banbury Oil Deport

Technical Note 5: Response to EA Drainage Comments 16th January 2023

8th March 2023

1 Introduction

- 1.1 This technical note reviews the comments provided by the Environment Agency (EA), dated 16th January 2023, for the proposed development at Banbury Oil Deport.
- 1.2 The Application Site forms part of a wider allocated Site, Banbury Canalside, which is covered under Planning Policy BAN1 Banbury Canalside.
- 1.3 The EA commentary is noted in *italics* with the Brookbanks response noted in blue.

2 EA Drainage Comments

- 2.1 *The applicant has not provided details of any of the other climate change scenarios for this catchment and to proceed with detailed designs based on this extreme representation of flooding is unlikely to result in a viable development. The applicant needs to also consider the higher central climate change scenario (25%). Should this result in increased flood risk to the nearby rail station and tracks, compensation to address this will need to be designed and shown to be feasible in order for planning permission to be granted. Should the rail station and be unaffected by the development proposal using the 25% scenario, then it may only be necessary to consider the central climate change allowance of 15%.*
- 2.2 The EA's model has now been run to illustrate the 25% climate change scenario and 15% climate change scenario, with the modelled results provided in **Appendix A**. Due to the extent of flooding across Banbury, in both scenarios the development Site is still affected by flooding coming in from the railway line.
- 2.3 The maximum flood depths across the Site are:
 - 1 in 100 year plus 49% climate change storm event - 0.4996m
 - 1 in 100 year plus 25% climate change storm event - 0.406m
 - 1 in 100 year plus 15% climate change storm event - 0.346m
- 2.4 The application Site forms part of an allocated site under Planning Policy BAN1 Banbury Canalside. The Site is also protected by the Banbury Flood Alleviation Scheme, the model has also been run in the defended scenario. Modelled results provided in **Appendix B**. As shown in these results the proposed development blocks are unaffected by flooding in the 1 in 100 year, 1 in 100 year plus 15% climate change, 1 in 100 year plus 25% climate change and 1 in 100 year plus 49% climate change storm events.

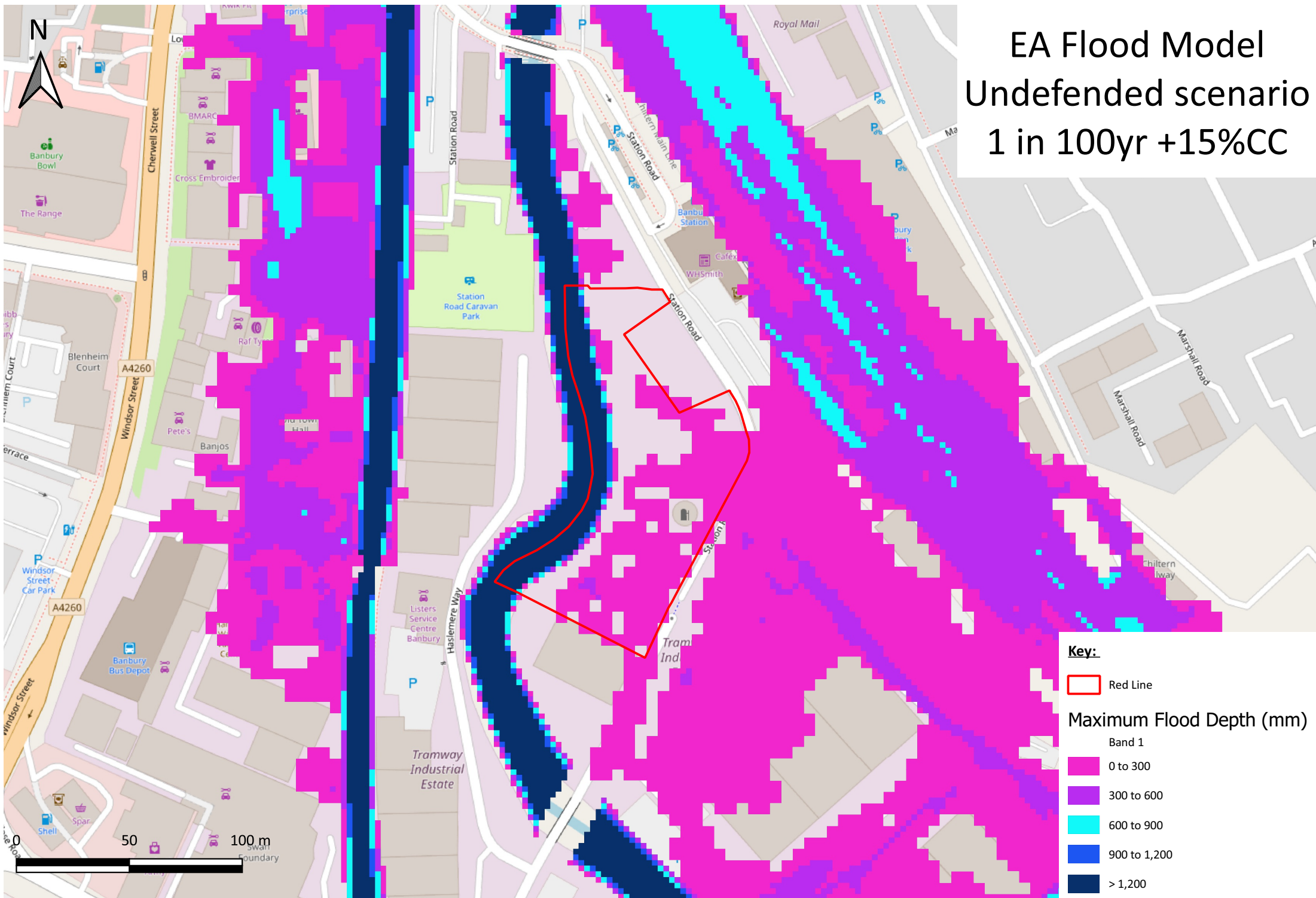
2.5 Therefore, as the development Site is protected from flooding in the defended scenario, flood compensation from the development is not required. However, as the Site is affected by 0.4996m of flood water during the undefended scenarios, flood resilient building techniques could be included in the ground floor areas of the development. These measures would be secured by a planning condition and could include, but are not limited to:

- Resilient wall finishes – Lime plaster or similar specified crack resistant finishes for repainting, switching boards to horizontal rather than vertical hanging so only lower boards would need replacing.
- Resilient floor finishes – 100% water proof floor finishes with laminate or wood effect, integrated waterproof skirting which can easily be unclipped and replaced if needed.
- Raised electric sockets – setting socket heights above the predicted flood levels along with other services will reduce the risk for the need to rewire following an event.

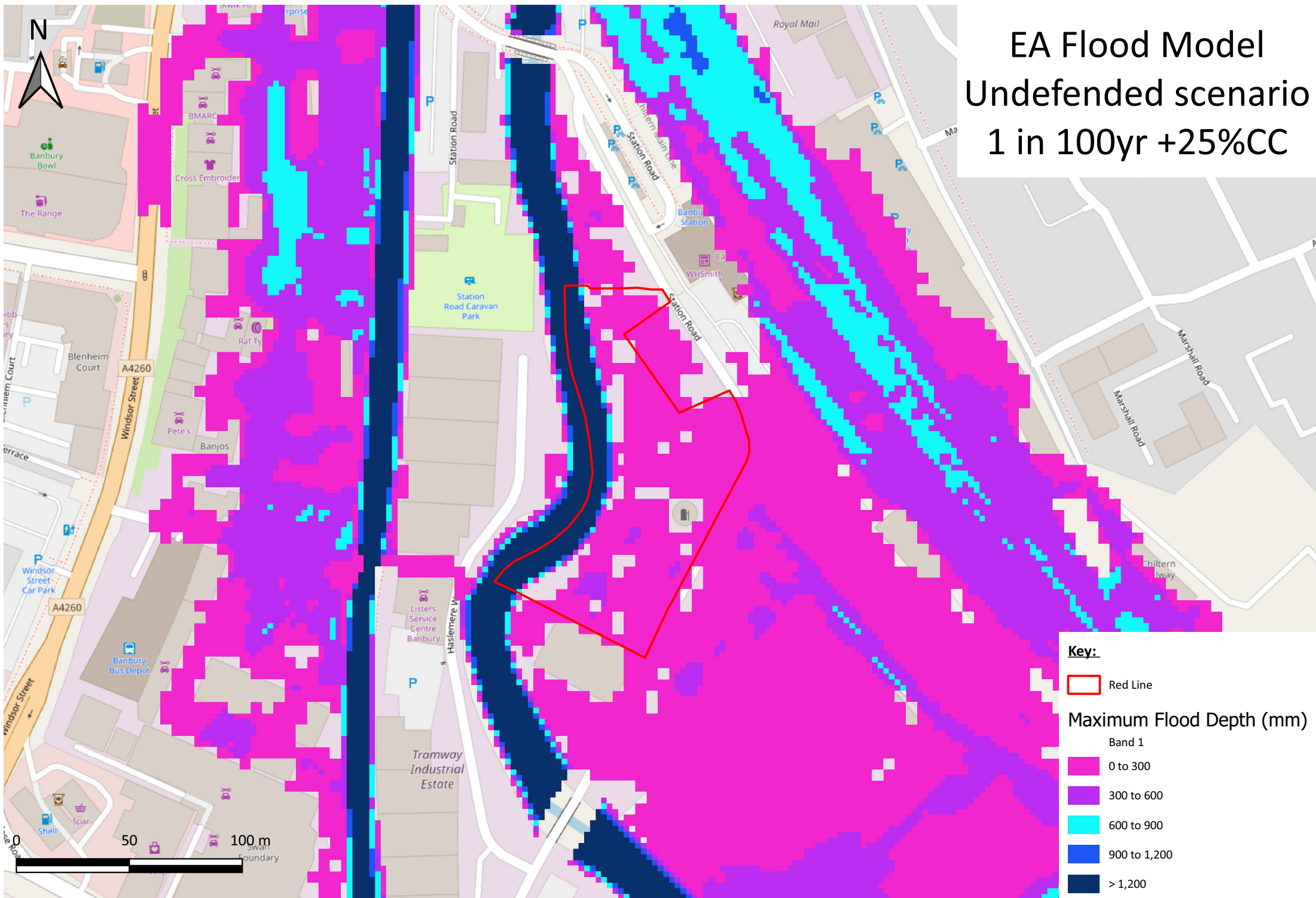
2.6 This approach is in accordance with policy when considering an already allocated site which is located behind flood defences to address residual flood risk affects. This is detailed in paragraph 167 of the NPPF where it can be demonstrated that the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment.

Appendix A – Undefined Climate Change Scenarios

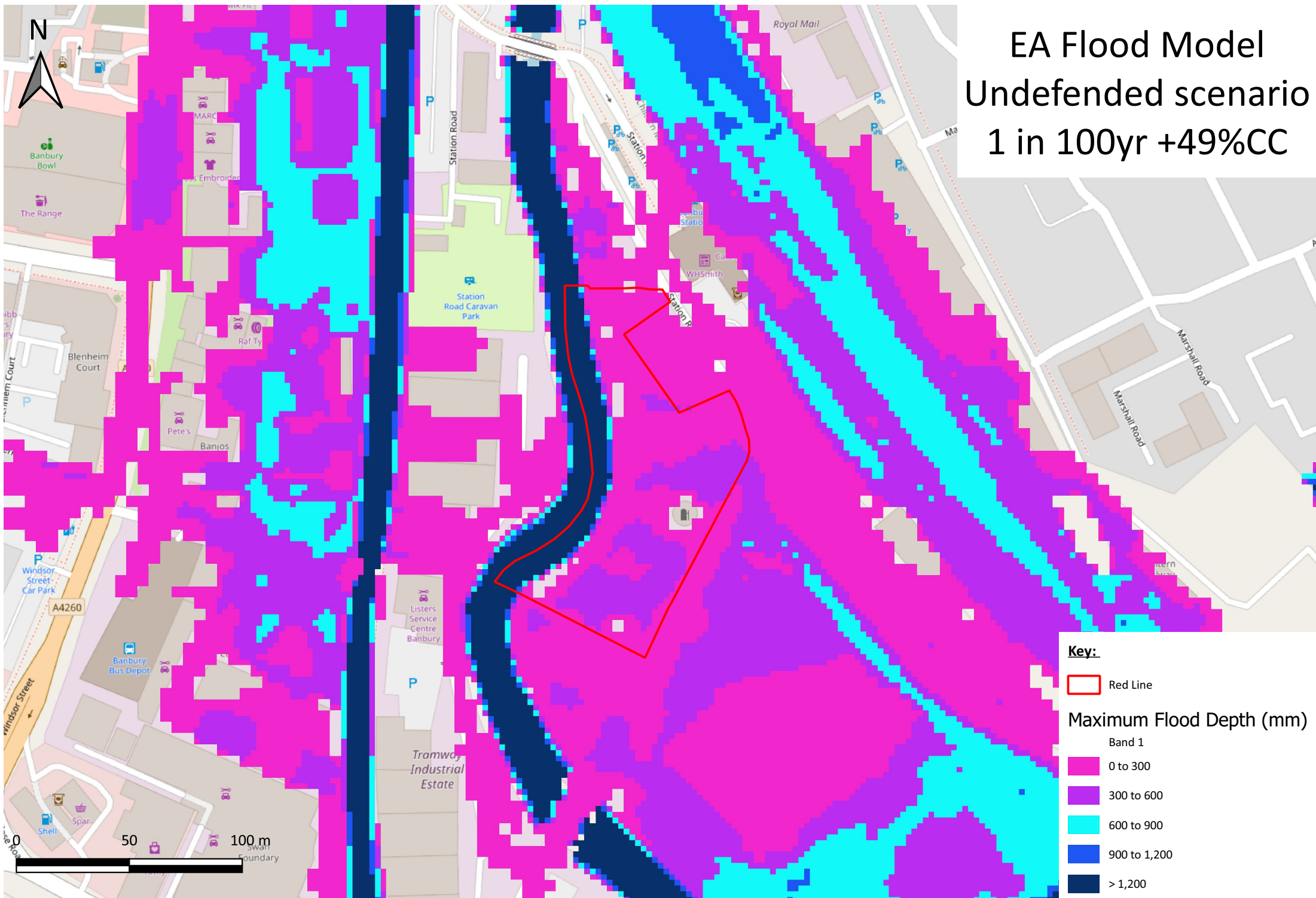
EA Flood Model Undefended scenario 1 in 100yr +15%CC



EA Flood Model Undefended scenario 1 in 100yr +25%CC

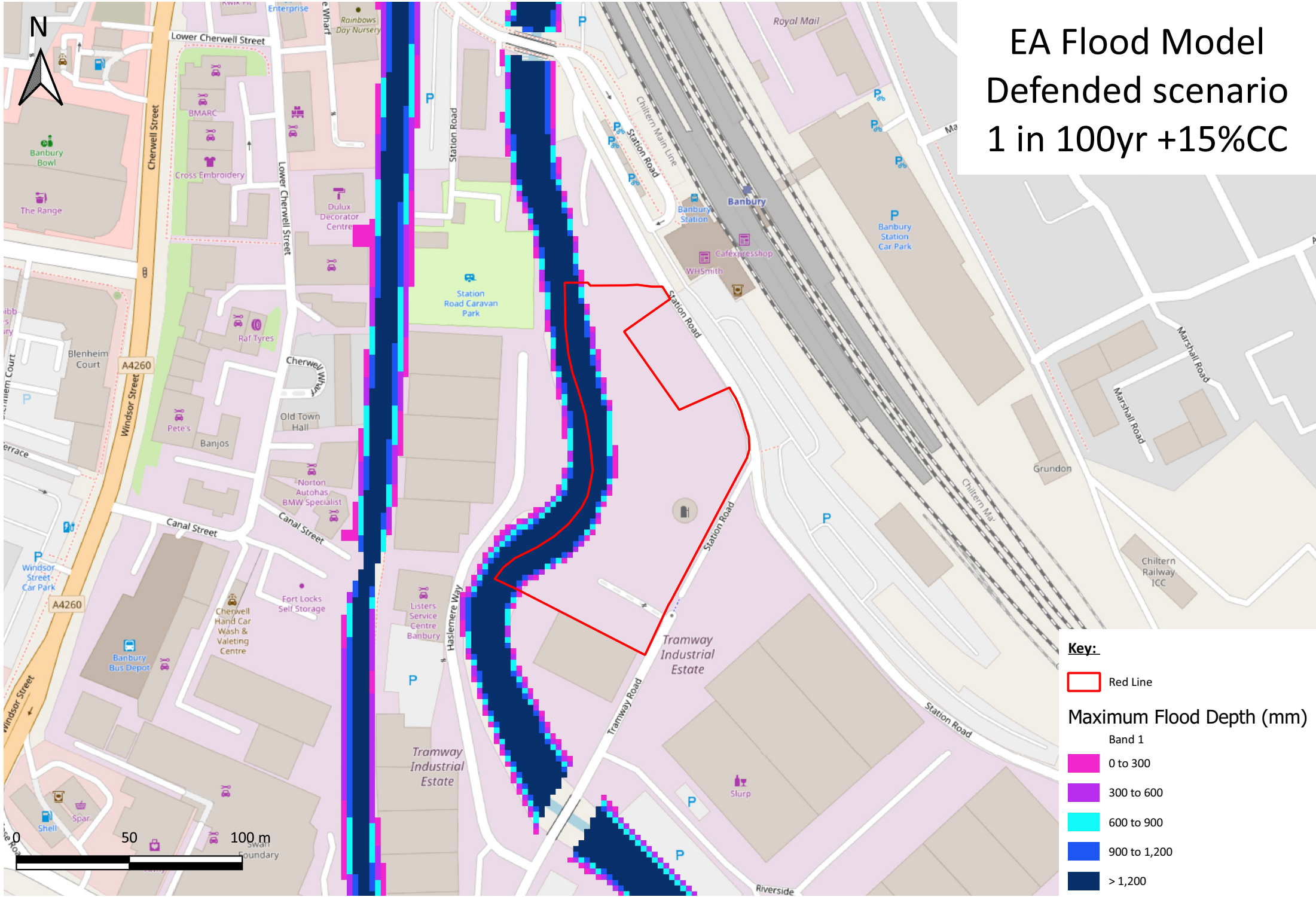


EA Flood Model Undefended scenario 1 in 100yr +49%CC

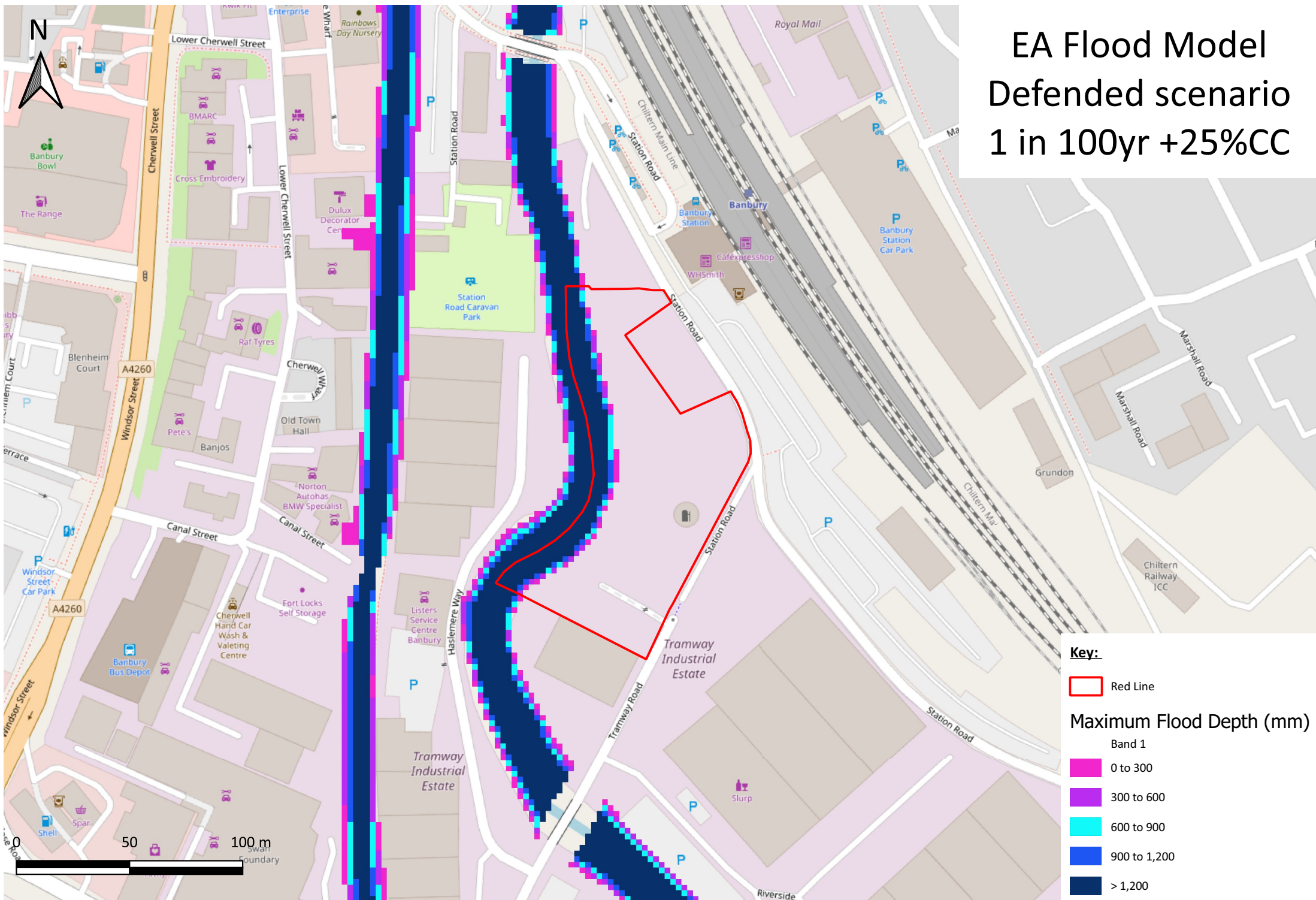


Appendix B – Defended Climate Change Scenarios

EA Flood Model Defended scenario 1 in 100yr +15%CC



EA Flood Model Defended scenario 1 in 100yr +25%CC



Key:

Red Line

Maximum Flood Depth (mm)

Band 1

- 0 to 300
- 300 to 600
- 600 to 900
- 900 to 1,200
- > 1,200

EA Flood Model Defended scenario 1 in 100yr +49%CC

