

Environment Agency Comments on Tewkesbury Borough Council's Level 2 Strategic Flood Risk Assessment (SFRA) – November 2019

This document is an Appendix to the Environment Agency's (EA) comments on the Tewkesbury Borough Local Plan (2011-2031) Pre-Submission Document (See EA's letter dated 15 November 2019).

It provides a note of comments made by the EA at previous stages of the Local Plan preparation regarding the Level 2 SFRA. It relates primarily to the Level 2 SFRA undertaken by JBA Consulting, dated November 2017. (Some of the comments may also relate to the Level 2 SFRA Addendums dated August 2018 and July 2019.)

It is understood that the Council does not intend at this point in time (November 2019) to update the SFRA. This document has therefore been provided in the interests of highlighting aspects within the SFRA that the EA considers are errors or areas for improved wording. This is to assist developers and planners that may refer directly to the SFRA documents in future in the interests of delivering sustainable development and avoiding delays in the preparation of planning applications.

1. Whilst absent from Sections 4 and 12 (Recommendations) of both SFRAs, we recommend the following wording is included for individual site allocations where flood risk has been identified; *"A site specific Flood Risk Assessment (FRA) is required for all sites that contain elements of Flood Zone 2 and/or 3 the extents of which should be determined from detailed hydraulic modelling where only generalised modelling has been used within the Level 2 SFRA."*
2. Within the Infrastructure and Access Section, where proposed allocations would benefit from the Environment Agency's Flood Warning Service to aid any flood management or evacuation procedures over the lifetime of any development, we would expect a financial contribution to be made by any developer to the lifetime costs of this service (this is mentioned briefly in section 5.3.5). We therefore recommend the following wording is included within the Policy; *"Any developments that rely on the Environment Agency Flood Warning Service for emergency planning purposes should be identified and the use of developer contributions considered to fund maintenance of and/or improvements to this service."*
3. We recommend that the construction of flood defences to enable new development should only be considered where these will have wider benefits to existing communities and not just to enable new development. We therefore recommend the following wording: *"If flood defences are proposed to be constructed to protect a development site, this will only be considered if this infrastructure also provides improved protection to existing local communities, it will also need to be demonstrated that the defences will not have a resulting negative impact on flood risk elsewhere, and that there is no net loss in floodplain storage."*
4. Paragraph 3.5 - It is noted that the standards of protection for development do not include an allowance for climate change. It is considered that for those types of development where the 'exception test' needs to be passed, the current standard of protection for any new developments automatically includes the Higher Central allowance for the potential impacts of climate change. The reliance on the requirement for improvements to be undertaken should be avoided or heavily

caveated to be delivered by the applicant prior to any development commencing on site and to meet current standards.

5. Paragraph 4.2 - We recommend a caveat is included within the document stating that *“at the time of the preparation of the Level 2 SFRA, the current guidance on climate change allowances, as published by DEFRA, are shown within Table 4-1. However, the impacts of climate change are regularly reviewed and the detailed guidance contained within the Level SFRA 2 may be subject to change”*.
6. Paragraph 4.2.2 - Upper end allowances should be checked for all developments with Flood Zones 3a and 3b in relation to the resilience of buildings and the incorporation of appropriate measures as the figures for climate change may change over the lifetime of a development. All mitigation measures should be sufficiently robust to meet the potential challenges of future climate change predictions.
7. Paragraph 4.5 – We advise the first aim for ‘more vulnerable’ development is for them to be resistant over their lifetime, whilst lower flood risk vulnerabilities should incorporate resilience as a minimum (noted the difference is defined in more detail in sections 5.4 and 5.5).
8. Paragraph 5.3.1 – We do not concur that vehicular parking areas should be considered as flood compatible. We recommend the vulnerability classification of car parks should be the same as the associated use. Flood depths and hazard ratings, including evacuation procedures and flood warning must be considered to be able to pass the principles of ‘exception test’ (where necessary).
9. Paragraph 5.3.2 - The figures set out in this section are incorrect the minimum floor levels should be set 600mm above the appropriate modelled return periods (including an allowance for climate change) in line with our Climate Change Guidance note.
10. Paragraph 5.3.4 - Whilst we broadly support this section we consider modification of ground levels should also apply to temporary storage of material and result in no loss of floodplain storage or interruption to flood flows throughout the whole development process. This should be clearly stated.
11. Chapter 7 ‘Strategic Flood Risk Solutions’. It is considered that the order in which the different proposals are presented should be reviewed and re-arranged with Catchment and Flood Plain Restoration preceding Flood Storage Schemes. The latter solution in fluvial terms is deemed a last resort as it will normally require significant long term investment, result in greater environmental impacts and need for physical intervention. This approach is considered less sustainable than those set out within the Catchment and Floodplain Restoration. Within the former please also include reference to the removal of obstructions to flow within the floodplain, this may include existing buildings and disused infrastructure or should be included within the structural removal section.