
Project:	Weston Vision (Mead Realisations)	Reference:	BMW/176/TN1/RevA
Location:	Weston-super-Mare, North Somerset	Author:	Stuart Nelmes
Date:	27 th October 2011	Approved:	David Hollingsworth

1.0 SUMMARY INFORMATION

Introduction

- 1.1 BWB Consulting Ltd has been commissioned by Mead Realisations to provide flood risk advisory services and the production of a Flood Risk Assessment (FRA) with respect a proposed mixed use development of land under Mead Realisation control ("Mead Realisations Development Land") at West Wick, part of the wider strategic development area (known as "Weston Villages"), Weston-super-Mare.
- 1.2 This Flood Risk Position Statement has been produced in accordance with Planning Policy Statement No. 25 (PPS25) with respect the examination of the North Somerset Core Strategy being undertaken.
- 1.3 This position statement is based on the following information:
- North Somerset Council *Strategic Flood Risk Assessment* (SFRA) outputs
 - Environment Agency data & consultations
 - Royal Haskoning *Flood Management Study* Report & Appendices, produced on behalf of North Somerset Council, Environment Agency and North Somerset Drainage Board
 - Topographical Site Survey & site walkover observations
 - Concept masterplanning of the proposed site, including reference to the *Broadway Malayan Masterplan & Report* (produced on behalf of North Somerset Council)
 - Review of Planning Application information on adjacent land relevant to the Weston Vision/ Weston Regeneration Area
- 1.4 It is understood in particular the Inspector is seeking that this Position Statement address the following questions:

- (i) The date on which this assessment was undertaken, and*
- (ii) The date on which the final report is delivered*

- a. *“Application of sequential and exception tests of PPS25 with respect to selected development locations*
- b. *Flood prevention measures required for Weston Villages and their design and delivery*
- c. *Flood prevention measures required for Weston super Mare and the North Somerset as a whole and their design and delivery”*

1.5 In line with the above, this Position Statement has therefore considered these questions under specific headings to assist in determination of these issues.

2.0 PPS25 SEQUENTIAL TEST

Planning Context

2.1 As it is understood the Weston Villages strategic development area and Mead Realisations Development Land have no formal planning designation, although the adopted Regional Strategy (RPG10), the Joint Structure Plan and Replacement Local Plan provide a strategy for North Somerset that targets deliver of *“employment-led regeneration for Weston-super-Mare through development in sustainable locations”*. The approach adopted to date forms *“the central element of the settlement strategy in the Core Strategy”*. The draft Regional Spatial Strategy (RSS), examined in public in 2007, has never been adopted.

2.2 Furthermore Weston Villages, including the Mead Realisations Development Land, has been promoted by the developer and the Local Planning Authority for potential strategic development over a period of time, as evidenced by the production of, and the site inclusions within:

- The Weston-Super-Mare *Flood Management Plan* (Royal Haskoning on behalf of EA, NSC & NSIDB 2007), which references strategic development to the south of Weston-super-Mare as a means to facilitate (and fund) strategic flood management works that would both support the proposed development and help manage current flood risk issues with the town;
- a *Masterplan for the Weston Regeneration Area* (Broadway Malayan & others 2009), which set out a potential framework for the delivery of development to the south of Weston-super-Mare

2.3 A number of planning applications have come forward and been approved within the Weston Villages/ Weston Vision strategic development area and a number of initial phases of house building has become on land known as the RAF Locking site and also on the former Airfield site.

Planning Policy Statement (PPS) 25

2.4 Table D2 of PPS25 classifies land use. Under these classifications the proposed mixed use development has a series of classifications ranging from ‘More

Vulnerable' residential to 'Less Vulnerable' employment and retail uses and also 'Water Compatible' leisure uses.

PPS25 Sequential Test

- 2.5 In accordance with paragraph 2.21 of PPS25 the Council has undertaken both a Strategic Flood Risk Assessment and Sustainability Appraisal of this location, the conclusions of which identify Weston Villages as a suitable location for development. We would support these conclusions.
- 2.6 The above is further supported by recent applications and grants for development in this area.

3.0 FLOOD PREVENTION MEASURES FOR WESTON VILLAGES

- 3.1 As mentioned in Section 1.0 above, parts of the site are shown to be at potential risk from tidal/ coastal fluvial sources.
- 3.2 The Weston Villages area is defended to a minimum 200-year design standard from coastal flooding, by virtue of sea and tidal defences along the coast. However, parts of the area are at residual risk from tidally influenced fluvial flooding from the local rhyne system.
- 3.3 The risk from fluvial sources has been considered as part of the *Weston-super-Mare Flood Management Study*, which has identified a comprehensive strategy to realise the development potential of the Weston Villages/ Weston Vision land by undertaking strategic drainage and flood alleviation options to the potential benefit of both the proposed development and existing housing.
- 3.4 In line with the recommendations set out in the *W-S-M Flood Management Study* the Mead Realisations Development Land proposes to contribute to proposed improvements of the River Banwell. The current strategy for this improvement is to undertake significant earthworks along the River Banwell to provide a compound (2-stage) channel that aims to provide storage volume to meet the following objectives:
- 1) Reduction in flood risk to existing property through St Georges and downstream;
 - 2) Delivery of all surface water attenuation from the proposed development. This is considered sustainable in this location, as opposed to extensive on-site source control measures, as a result of the importance of tidal influence on flooding in this location. Essentially, the rhynes will become tide-locked during flood events, essentially extending the critical storm duration for the contributing catchment, and meaning that provision of storage at the downstream end of the system (near to the New Bow Sluice, which controls the outfall from the River Banwell to the sea) is critical to minimise potential flood risk; and,
 - 3) Compensation for the loss of floodplain associated with existing rhyne system capacity deficiencies and to be displaced by proposed development.

3.5 Other specific flood risk mitigation measures to be incorporated within the proposed development itself include:

- Raised floor levels (to recommended values set out in the Flood Management Study, as agreed by the EA, and based on hydraulic modelling);
- Improvements of existing rhyne systems, to ensure that they have capacity to convey design flood flows from the site to the compound channel on the River Banwell;
- The inclusion of distributed Sustainable Drainage System features (in the form of rhyne/ swales) to provide water quality treatment prior to discharge to the main rhyne system.

4.0 FLOOD PREVENTION MEASURES FOR WESTON-SUPER-MARE

4.1 As discussed above, the agreed strategy for flood risk management in Weston-super-Mare is to provide significant additional storage within the rhyne system to accommodate both the proposed developments and to provide benefit to existing properties by reducing the likelihood and frequency of potential flooding.

4.2 The strategic development area effectively drains in two directions, with the Mead Realisations Development Land contributing to the River Banwell and the former Airfield site draining toward the Uphill Great Rhyne. The former RAF Locking site is raised on high ground, and as such can effectively drain toward either system, but it is understood that runoff from the RAF site is likely to be divided between the Banwell & Uphill Great Rhyne catchments.

4.3 The former Airfield site is to contribute to the proposed 'Super-Pond' to be located in the lowest extent of the site, with input from the RAF Locking site. As discussed above, the Mead Realisations land drains to the River Banwell and will contribute to improvements to the Banwell in the form of a new compound channel. The RAF Locking site will likely ultimately contribute to both flood alleviation schemes.

4.4 It is important to note that without the development it is unlikely that the proposed flood management solutions will be afforded or implemented in the short to medium term, and as such the town of Weston-super-Mare stands to benefit from a flood risk perspective from the proposed strategic development.

5.0 SUMMARY

5.1 In summary, the site forms part of a strategic development that has been effectively promoted by the Local Planning Authority and supported by statutory bodies, specifically the Environment Agency and North Somerset Internal Drainage Board.

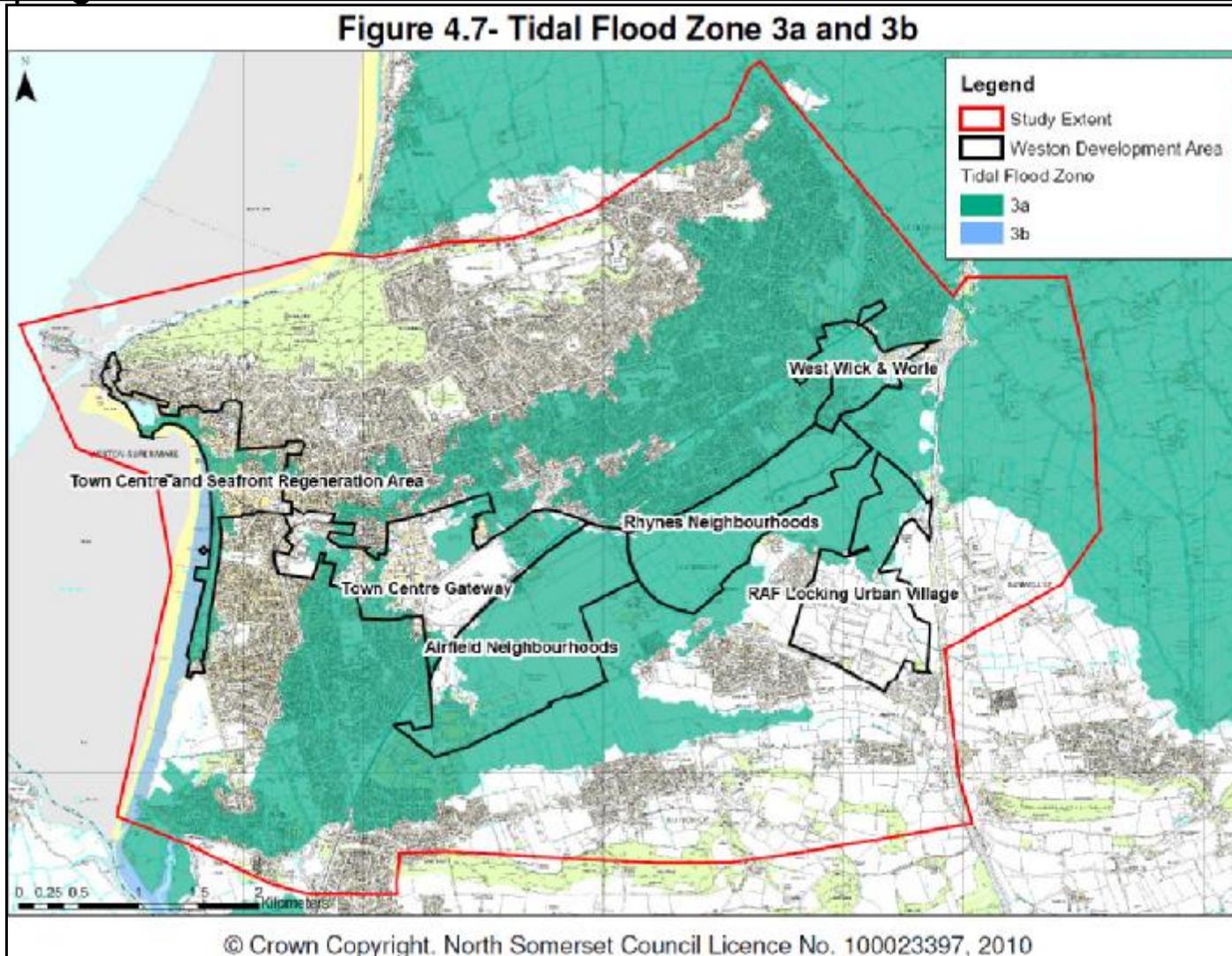
5.2 The *Weston-super-Mare Flood Management Study*, prepared by Royal Haskoning on behalf of North Somerset Council, the Environment Agency and North Somerset Internal Drainage Board, identifies opportunities for flood alleviation options to be

delivered that would benefit both the proposed developments and help reduce flood risk to currently affected properties within Weston. It is important to acknowledge that the strategic development in turn facilitates the delivery of these flood alleviation schemes i.e. the schemes are predicated on land and funding being made available as part of the strategic development proposals and would unlikely to be implemented in the short or medium term should the development not take place. As such, it can be concluded that flood risk across Weston-super-Mare in general would benefit from the delivery of the strategic development.

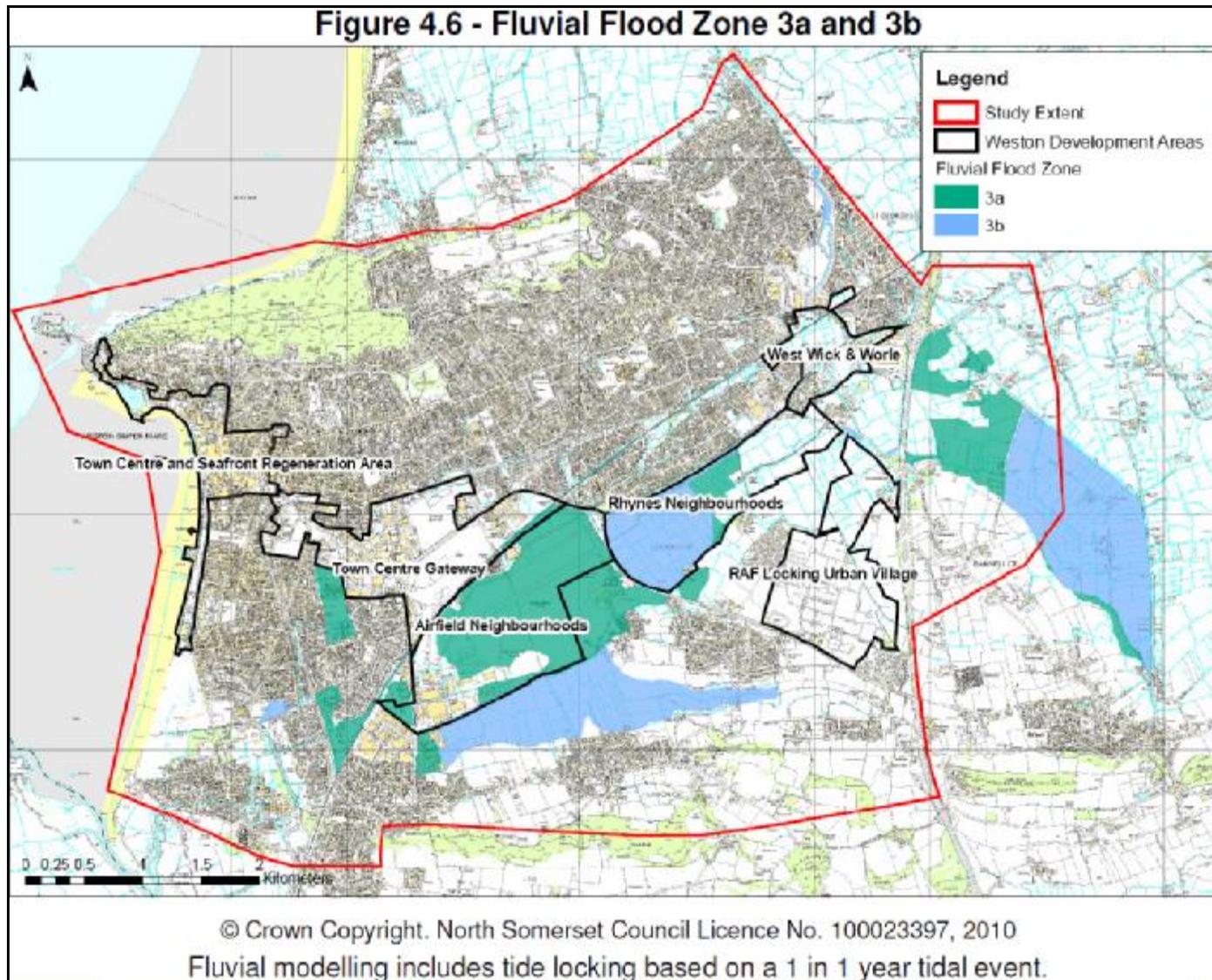
- 5.3 The proposed Mead Realisations Development Land drains to the River Banwell catchment and as such is to contribute the proposed compound channel on the Banwell adjacent to the St Georges area of Weston-super-Mare.
- 5.4 A large proportion of the strategic Weston Villages area is at risk from coastal/ tidal flooding, but is currently defended from such flooding up to a minimum 200-year (0.5% annual probability of occurrence) design standard.
- 5.5 Parts of the Weston Villages area are also at risk from fluvial flooding, from capacity restrictions in the local rhyne system, however the extent and depth of such flooding is significantly reduced when compared to the potential undefended coastal/tidal flood extents. This flood risk is to be mitigated through the delivery of the flood management study recommendations i.e. River Banwell compound channel and Uphill Great Rhyne Super-Pond.
- 5.6 The strategic development, and by virtue the Mead Realisations Development Land itself, is considered to be sequentially preferable to alternative sites by the Local Planning Authority, as evidenced by its inclusion within the draft Core Strategy.

Annex A

Flood Mapping Exerts



Exert from North Somerset Level 2 Strategic Flood Risk Assessment



Exert from North Somerset Level 2 Strategic Flood Risk Assessment

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