



# **Proposed Submission Draft Vale of Aylesbury Local Plan (Regulation 19)**

**Flood Risk Topic Paper**

**November 2017**

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## 1. Purpose of This Topic Paper

- 1.1 This topic paper is one in a series which sets out how we have developed the Proposed Submission Local Plan. Each topic paper will look at relevant national and local policy and guidance that informs the VALP. Topic papers explain how the strategy has developed and the data, evidence and feedback that have informed choices made in formulating policies. The topic papers' aim is to provide background information; they do not contain policies, proposals or site allocations. All topic papers will be finalised to accompany the submission of the VALP to the Secretary of State for examination.
- 1.2 The main areas covered by this topic paper are:
- the national planning policy context for flooding and flood risk
  - an overview of the key evidence that has been used to inform the VALP policy approach taken
  - an appraisal of the local flood risk context and policy considerations
  - an overview of the VALP policy approach for mitigating flood risk in the district
  - an overview of how the Draft VALP consultation responses have informed the Proposed Submission policy approach.
- 1.3 This topic paper relates to the following VALP policies set out in the Proposed Submission Plan:
- I4 Flooding
  - Site allocations policies - various
- 1.4 The paper should be read with the following documents:
- Vale of Aylesbury Local Plan – Proposed Submission VALP – 2013 - 2033, September 2017
  - Sustainability Appraisal (SA) of the Vale of Aylesbury Local Plan (September 2017)
  - Aylesbury Vale District Council Level 1 Strategic Flood Risk Assessment Final Report (May 2017)
  - Aylesbury Vale District Council VALP: Aylesbury Vale District Flood Risk Sequential Test – Version 3.0 (September 2017)
  - Aylesbury Vale District Council Level 2 Strategic Flood Risk Assessment Final Report (August 2017)
  - Aylesbury Vale Housing and Economic Land Availability Assessment (HELAA) Report v4 –To Inform VALP Proposed Submission Plan (January 2017)

## 2. Defining Flood Risk

- 2.1 The overarching aim of development and flood risk planning policy in the UK is to ensure that the potential risk of flooding is taken into account at every stage of the planning process.
- 2.2 Flood zones have been created by the Environment Agency to be used within the planning process as a starting point in determining how likely somewhere is to flood. However, they only refer to flood risk from rivers or the sea, and not all rivers are included. In producing a Local Plan, a strategic flood risk assessment is required to refine the EA flood zones and identify all forms of flooding in the area and consider the effect of climate change. The SFRA also looks at the effect of flood control infrastructure in the area, including defences and the effect they have on likely flood extents.
- 2.3 The Environment Agency has developed flood risk maps for the entire country that identify areas of land at risk of flooding. The map classifies land within one of the following three zones. These flood zones refer to the probability of river and sea flooding, ignoring the presence of defences. Flood zone definitions are set out in the National Planning Policy Guidance (NPPG) in Table 1:

- Flood Zone 1 – land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%)
- Flood Zone 2 – land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% – 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% – 0.1%) in any year
- Flood Zone 3 – land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year

*The NPPG subdivides Flood Zone 3 into Flood Zones 3a and 3b.*

- *Zone 3a – high risk (1% or greater from rivers and 0.5% or greater from the sea in any given year)*
- *Zone 3b – the ‘functional floodplain’ or used as a flood storage area – this is a very high flood risk area.*

## 3. Policy Context

- 3.1 The National Planning Policy Framework (NPPF) sets strict tests at paragraph 100 to protect people and property from flooding which all local planning authorities are expected to follow. Where these tests are not met, national policy is clear that new development should not be allowed. The main steps to be followed set out in the NPPF are designed to ensure that if there are better sites in terms of flood risk, or a proposed development cannot be made safe, it should not be permitted.

3.2 NPPF paragraph 100 states:

*Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but, where development is necessary, making it safe without increasing flood risk elsewhere. Local Plans should be supported by strategic flood risk assessment and develop policies to manage flood risk from all sources, taking account of advice from the Environment Agency and other relevant flood risk management bodies, such as lead local flood authorities and internal drainage boards. Local Plans should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk, taking account of the impacts of climate change, by:*

- *applying the sequential test*
- *if necessary, applying the exception test*
- *safeguarding land from development that is required for current and future flood management*
- *using opportunities offered by new development to reduce the causes and impacts of flooding; and*
- *where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long term, seeking opportunities to facilitate the relocation of development, including housing, to more sustainable locations.*

3.3 Paragraph 101 of the NPPF states that local planning authorities should refuse development proposals if there are reasonably available sites appropriate for the proposed development in areas with lower probability of flooding. The local planning authority's strategic flood risk assessment provides the basis for applying this requirement.

3.4 Following the application of the sequential test, if it is deemed not possible to locate the development proposal in an area at lower risk of flooding, the exception test can be applied (if appropriate). To pass the exception test, applicants must demonstrate that the development provides wider sustainability benefits to the community that outweigh flood risk, and submit a site-specific flood risk assessment that illustrates that the development is safe for its lifetime, taking account the vulnerability of its users, without increasing flood risk elsewhere and, where possible, reducing flood risk overall.

3.5 When determining planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Paragraph 103 of the NPPF states that development should only be considered appropriate in areas at risk of flooding where they have been informed by a site-specific flood risk assessment and following the sequential test, and if necessary the exception test, it can demonstrate that:

- (a) Within the site, most vulnerable development is located in areas at lowest risk unless there are overriding reasons not to prefer a different location; and

- (b) Development is flood resilient and resistant, including the provision of safe access and escape routes, any residual risk can be safely managed, and it gives priority to the use of sustainable drainage systems.
- 3.6 The NPPF also instructs local planning authorities that the sequential test does not need to be applied to individual development allocated in the development plan.
- 3.7 Table 2 of the NPPG sets out a flood risk vulnerability classification which puts particular land uses into vulnerability categories and identifies which vulnerability category is appropriate within each flood zone.
- 3.8 The site allocations included within the VALP, and the evidence base which underpins the plan, have also been developed with regard to advice provided in NPPG. Local planning authorities are required to undertake a strategic flood risk assessment (SFRA) to assess the risk to their area from flooding from all sources, now and in the future, taking into account the expected impacts of climate change. SFRAs should also assess the impact that land use change and development will have on flood risk in the area.
- 3.9 The NPPG paragraph 10 sets out the following main uses of an SFRA by the local planning authority:
- inform the **sustainability appraisal** of the Local Plan, so that flood risk is fully taken into account when considering allocation options and in the preparation of plan policies, including policies for flood risk management to ensure that flood risk is not increased
  - apply the **sequential test** and, where necessary, the exception test when determining land use allocations
  - identify (for a **Local Plan policy**) the requirements for site-specific flood risk assessments in particular locations, including those at risk from sources other than river and sea flooding
  - determine the acceptability of flood risk in relation to emergency planning capability
  - consider **opportunities** to reduce flood risk to existing communities and developments through better management of surface water, provision for conveyance and of storage for flood water
  - determine the **variations** in risk from all sources of flooding across their areas, and also the risks to and from surrounding areas in the same flood catchment.
- 3.10 Two levels of SFRA are identified within NPPG (at paragraph 12). In areas where flooding is not considered to be a major issue and development pressures are low, a Level 1 SFRA should provide sufficient evidence upon which to base policies and site allocations. However, a Level 1 SFRA must be detailed enough to allow application of the sequential test to the location of development and to identify whether development can be allocated outside of high and medium flood risk areas (based on all sources of flooding) without application of the exception test.
- 3.11 The NPPG at paragraph 12 sets out that where a Level 1 assessment shows that land outside flood risk areas cannot appropriately accommodate all the necessary

development, it may be necessary to increase the scope of the assessment to a Level 2 to provide the information necessary for application of the exception test where appropriate. A Level 2 study was required to inform the VALP. A Level 2 strategic flood risk assessment should consider the detailed nature of the flood characteristics within a flood zone including:

- flood probability
- flood depth
- flood velocity
- rate of onset of flooding; and
- duration of flood.

3.12 As alluded to in paragraph 3.9 above, the undertaking of a strategic flood risk assessment can help local planning authorities apply the **sequential test** when determining site allocations to be included within a Local Plan. By directing development to the areas at lowest risk of flooding first, the sequential test can help ensure that growth is safely and sustainably delivered.

## 4. Key Evidence

4.1 The National Planning Policy Framework requires the Council to develop policies based on up-to-date evidence. Our evidence base comprises documents that have helped inform past and current stages of our Local Plan policy development. The views and feedback of the community, key stakeholders and partner organisations also form part of our evidence base. In particular, the Council has used advice from the Environment Agency in developing our evidence base related to flood risk.

4.2 The following evidence base documents are those key to informing the VALP plan approach to managing flood risk:

- Aylesbury Vale District Council Level 1 Strategic Flood Risk Assessment Final Report (May 2017)
- Aylesbury Vale District Council VALP: Aylesbury Vale District Flood Risk Sequential Test – Version 3.0 (September 2017)
- Aylesbury Vale District Council Level 2 Strategic Flood Risk Assessment Final Report (August 2017)
- Aylesbury Vale Housing and Economic Land Availability Assessment (HELAA) Report v4 –To inform VALP Proposed Submission Plan (January 2017)

## 5. Appraisal

### Local Context

5.1 Severe flood events in northern Buckinghamshire have become increasingly common in recent years with notable events in March 2016, February 2014, winter 2012/13, June-July 2007, November-December 2006, January-March 2003 causing damage to property, loss of business and putting people at risk of injury or death. Flood events in Aylesbury Vale have involved one or more of the following forms: fluvial (rivers and other watercourses overtopping), surface water (flash floods), groundwater (levels too high), sewer flooding, reservoirs overtopping, drains unable to cope leading to surface water flooding. Appendix C of the SFRA Level 1 sets out a flood event history in Aylesbury Vale – the dates, source/cause and comments regarding the ongoing management of the event.

5.2 **Fluvial** flood risk. There are numerous main rivers in the district, all of which form part of the following larger catchment areas:

- Thame catchment (south-west)
- Oxon Ray catchment (west)
- Upper Great Ouse catchment (north)
- Ouzel and Milton Keynes catchment (north-west).

The watercourses within the district are summarised in Appendix B of the SFRA Level 1. Section 5.3 of the SFRA Level 1 provides an overview of fluvial flood risk to the district, the main areas known to be affected, and commentary on flood defences and studies to manage risk on a strategic scale. Map 6 of the SFRA Level 1 shows the location of key historic flood events from fluvial flooding in the district up to 2007. A separate Map 6 in the SFRA Level 1 shows Flood Zones 2 and 3 (medium and high risk of fluvial flooding). This shows the main rivers of the district have a greatest area of fluvial flood risk.

5.3 Section 5.5 of the SFRA Level 1 provides a localised overview of **surface water** flood risk. Notable flood events in recent years were in January-March 2003 affecting various towns from an exceptionally wet winter, a number of localised incidents in Aylesbury town centre and intense rainfall in July 2007 affecting numerous locations in the district, in particular 96 properties flooded in Buckingham. Map 6 of the SFRA Level 1 shows the location of key historic flood events from surface water flooding in the district up to 2007.

5.4 In comparison to fluvial flooding, the understanding of risks posed by **groundwater** flooding is limited and mapping of it is in its infancy. Map 9 in the SFRA Level 1 shows that the district is generally at low risk from groundwater flooding and that the main areas at risk of groundwater emergence are the areas underlain by superficial geological deposits (mainly the rural north, parts of Aylesbury and areas adjacent the south eastern district boundary). Map 6 of the SFRA Level 1 shows the location of key historic flood events from groundwater flooding in the district up to 2007.

5.5 There are 11 reservoirs within the district. According to the Environment Agency's map, there are also five reservoirs outside of the district boundary that could have an effect within the district. There have been no recorded instances of flooding from these reservoirs. Para 5.7.2 of the SFRA Level 1 sets out the areas of the Vale with the potential to be affected by **reservoir** flooding.

- 5.6 Para 5.7.3 of the SFRA Level 1 sets out the areas of the Vale affected by **canal** flooding and when major incidents have taken place. There are four sections of the Grand Union Canal in the district – the main Grand Union Canal from Drayton Beauchamp near Tring to north of Stoke Hammond near Bletchley. There are three arms of the canal off the main network – to Aylesbury (fully watered), the Wendover Arm (partially re-watered) and the Buckingham Arm (partially restored). At present, canals do not have a level of service for flood recurrence (i.e. there is no requirement for canals to be used in flood mitigation), although the Canal and River Trust, as part of its function, will endeavour to maintain water levels to control the risk of flooding from canals to adjacent properties. The Aylesbury Arm has flooded in the past with overtopping and seepage particularly between College Road and Broughton Road and Broughton Lane and Oakfield Road.
- 5.7 **Sewer** flooding occurs when intense rainfall overloads the sewer system (surface water, foul water or combined), and/or when sewers cannot discharge property to watercourses due to high water levels. Infiltration (entry of soil or groundwater) into the sewer system via faults within the fabric of the sewerage system) is another cause of sewer flooding. Infiltration is often related to high groundwater levels, and may cause high flows for prolonged periods of time. Sewer flooding can also be caused when problems such as blockages, collapses or equipment failure occur in the sewerage system. Section 5.7.1 of the SFRA Level 1 provides an overview of the main areas vulnerable to sewer flooding though the data provided by water companies is on a postcode basis. Map 10 is a map showing the number of properties on the sewer flooding property register by postcode. The most incidences are east and southeast of Aylesbury (HP22 5 post code) which covers Aston Clinton, Berton, Stoke Mandeville and Weston Turville.

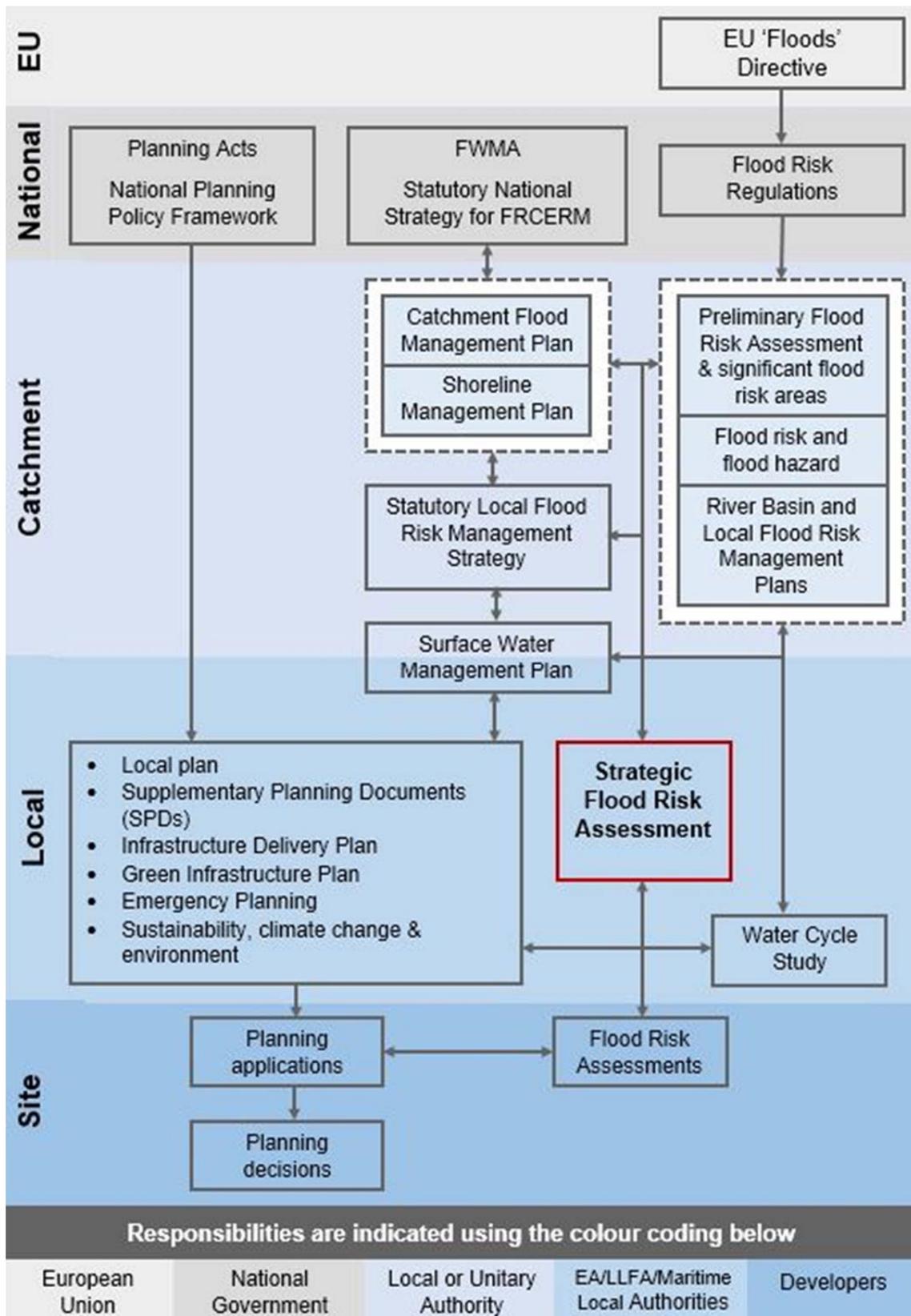


Fig. 1; Strategic planning links and key documents for flood risk (Aylesbury SFRA Level 1, 2017, p.18, Figure 2-3)

## Stakeholders

5.8 Table 2-4 of the SFRA Level 1 identifies the stakeholders responsible for managing flood risk and their responsibilities under the Flood and Water Management Act 2010 and the Flood Risk Regulations 2009. These are:

- The **Environment Agency** (national statutory strategy reporting and supervision, lead local flood authority for main rivers and reservoirs)
- **Buckinghamshire County Council** (lead local flood authority for ordinary watercourses, surface water, groundwater, other sources of flooding and input to national strategy, local planning authority for certain types of development)
- **Aylesbury Vale District Council** (input to national strategy, local planning authority for most types of development, designating authority for essential flood infrastructure)
- **Bedford Group of Internal Drainage Boards** (lead local flood authority for ordinary watercourses in the IDB area, maintenance and improvements, input to national strategy, providing water level management).

## SFRA Reports

- 5.8 Detailed hydraulic models that have informed the SFRA Level 1 are the Willows Flood Alleviation Study (2015), the Stoke Brook Model, HS2 (2013), Upper Great Ouse Model, EA (2012), Bear Brook Model, EA (2008) and Buckingham PAR Model (2001). During the preparation of the Level 1 SFRA, a planning application was submitted for the 'Woodlands' development between Bierton, Aston Clinton and the A41. The Woodlands planning application is accompanied by a flood risk assessment informed by new detailed modelling by Peter Brett Associates – which updates the 2008 Bear Brook Model. The model results were agreed with the Environment Agency by the time of the Level 2 SFRA and therefore the model results were then obtained and used in the final report of the SFRA Level 2.
- 5.10 The Council's Level 1 SFRA and sequential test emphasise that the district's development needs for more housing cannot be fully accommodated within Flood Zone 1. Accordingly, in producing the VALP, the Council has been required to assess whether locating a small amount of development within medium and high flood risk areas where it passes the flood risk sequential and exception tests.
- 5.11 The Level 1 SFRA carried out a screening of 294 HELAA sites against available flood risk information. Further refinement of the sites to be assessed was carried out by AVDC through the preparation of the VALP and 47 sites were taken forward for Level 2 assessment. The primary flood source for the sites (and reasons they have been assessed at Level 2) are as follows:

- 19 sites are partly located within the current Flood Zones (3b, 3a, 3a plus climate change)
- 14 sites are located within Flood Zone 1 but contain ordinary watercourse and,
- 14 sites have greater than 10% of their area within 1 in 1,000 year 0.1% risk of surface water flooding.

5.12 Section 9 of the SFRA Level 1 sets out summary and conclusions and next steps from the SFRA Level 1. Section 8 of the SFRA Level 2 sets out recommendations to inform VALP policy, sequential test and VALP sites.

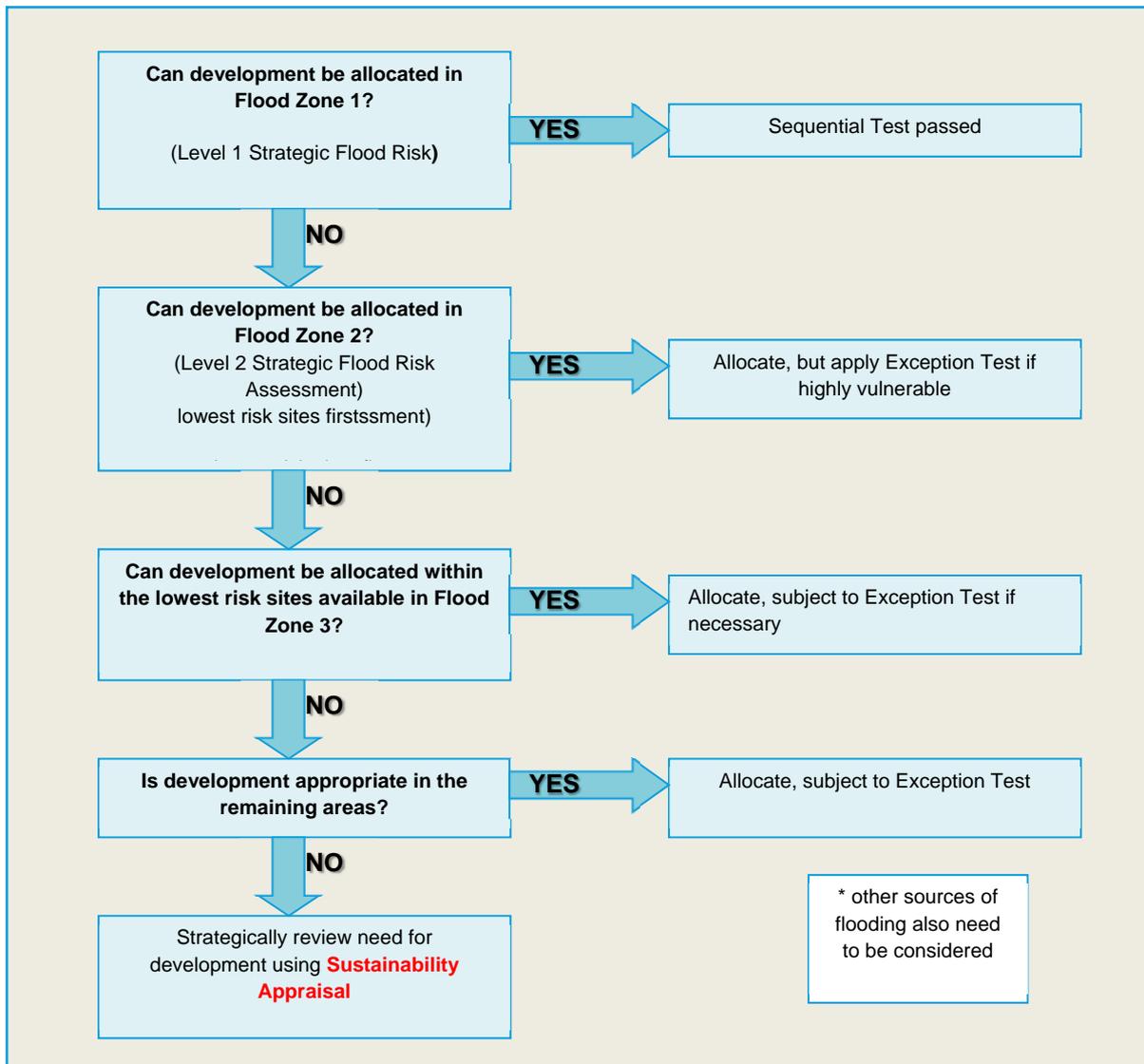


Fig. 2; Applying the Sequential Test in the preparation of a Local Plan. (Aylesbury, SFRA level 1, 2017, pg. 29, Figure 4-1)

### Sequential and Exception Test

5.12 As recommended in the SFRA, a sequential test has been applied, and is passed for the sites listed as being proposed for allocation in the VALP Proposed Submission

version (August 2017). Alternative sites in the Aylesbury Vale HELAA have been considered.

- 5.13 All the allocated sites except WTV018/BIE022 within the 'Land North of the A41' and site STO016 within 'South West Aylesbury' can be accommodated in Flood Zone 1 with the proviso that on all the allocated sites, areas of the site in Flood Zone 3a with climate change are set aside for only green infrastructure or other development that meets the terms of the NPPF/Planning Practice Guidance definition of 'water compatible development' for the purpose of flood risk vulnerability classification. The VALP Proposed Submission in both its allocation policies and site allocation boundaries shows these areas as green infrastructure.
- 5.14 The sequential test process has shown that while alternative sites to the site allocations may be in some cases entirely in Flood Zone 1, they have other constraints identified in the HELAA study or are in locations where development would be contrary to the VALP spatial strategy.
- 5.15 The strategic site allocation 'Land North of the A41' requires an exception test for the reasons set out in paragraphs 2.5.2-2.5.4 of the sequential test.
- 5.16 Site-specific criteria in the allocation policies (from recommendations in the SFRA Level 2) will tackle specific flooding issues such as the possibility of surface water or groundwater flooding.
- 5.17 Site STO016 requires an exception test due to the link road as 'essential infrastructure' and the presence of Flood Zone 3a on the site and areas of surface water flooding where the link road is likely to have to cross. The site forms part of the strategic allocation in VALP 'South West Aylesbury'.
- 5.18 The exception test has been applied in the three instances where required. Part One has been passed for the sites discussed and Part Two will be progressed in more detail for two of the sites once site masterplanning SPD has been completed by AVDC and sites come forward as planning applications, informed by the Level 2 SFRA.

### **The need for a new policy**

- 5.19 The Aylesbury Vale District Local Plan Policy GP67 on Planning and Flood Risk was not saved because it was considered already covered by the South East Plan Policy NRM3. Since the revocation of the SEP in March 2013, the NPPF has been the basis for flood risk policy in Aylesbury Vale. It is important that the new Local Plan has a policy in place which recognises the current local context. Without such a policy it may be difficult to meet the district's development needs and direct development to the most sustainable locations. For the VALP to be found sound, the site allocations included within it must be well justified and based on substantive evidence (which is the approach for policy formulation since the advent of the NPPF) including a flood risk sequential test and Level 1 and Level 2 SFRA.

- 5.20 Paragraph 6.3 of the SFRA Level 2 sets out recommendations for policies in the VALP and also recommendations for drainage control including sustainable drainage systems (SuDS) and flood betterment opportunities.
- 5.21 The lack of an up-to-date flood risk policy in the VALP or updated evidence base documents (such as a sequential test and SFRA) would most likely result in the Council receiving an objection from the Environment Agency and the Plan being found unsound at examination.

## 6. The VALP Policy Approach

- 6.1 Policy I4 of the VALP Proposed Submission (September 2017 draft for VALP Scrutiny) sets out the policy on flood risk as follows.

### I4 Flooding

#### Management of flood risk

In order to minimise the impacts of and from all forms of flood risk the following is required:

- a. Site-specific flood risk assessments (FRAs), informed by the latest version of the SFRA, where the development proposal is over 1ha in size and is in Flood Zone 1, or the development proposal includes land in Flood Zones 2 and 3 (as defined by the latest Environment Agency mapping). A site-specific FRA will also be required where a development proposal affects land in Flood Zone 1 where evidence, in particular the SFRA, indicates there are records of historic flooding or other sources of flooding, e.g. due to critical drainage problems, including from ordinary watercourses
- b. Other than sites allocated in the VALP, all development proposals must clearly demonstrate that the flood risk sequential test and sequential approach, as set out in the latest version of the SFRA, has been passed, and
- c. If the sequential test has been satisfied, development proposals, other than those allocated in this Plan, must also satisfy the exception test in all applicable situations as set out in the latest version of the SFRA.

#### Flood risk assessments

All development proposals must adhere to the advice in the latest version of the SFRA and will:

- d. provide level-for-level floodplain compensation and volume-for-volume compensation unless a justified reason has been submitted and agreed which may justify other forms of compensation
- e. ensure no increase in flood risk on site or harm to third parties
- f. explore opportunities to reduce flood risk overall, including financial contributions from the developer where appropriate

- g. ensure development is safe from flooding for its lifetime including an assessment of climate change impacts
- h. ensure development is appropriately flood resistant, resilient and safe
- i. take into account all sources and forms of flooding
- j. ensure safe access and exits are available for development in accordance with Department for Environment, Food and Rural Affairs (DEFRA) guidance<sup>1</sup>. Access to 'safe refuges' or 'dry islands' are unlikely to be considered safe as this will further burden the emergency services in times of flood
- k. provide an assessment of residual flood risk
- l. provide satisfactory evacuation management plans, where necessary, including consultation with the emergency services and emergency planners.

### **Sustainable drainage systems (SuDS)**

- m. ensure development layouts are informed by drainage strategies incorporating SuDS
- n. all development will be required to design and use sustainable drainage systems (SuDS) for the management of surface water run-off, as part of the submitted planning application. All development should adopt exemplar source control SuDS techniques to reduce the risk of flooding due to post-development runoff. SuDS design should follow current best practice (CIRIA Manual 2015 or as replaced) and Buckinghamshire County Council guidance on run-off rates and volumes to deliver wider environmental benefits
- o. where site-specific FRAs are required in association with development proposals, they should be used to determine how SuDS can be used on particular sites and to design appropriate systems
- p. in considering SuDS solutions, the need to protect groundwater quality must be taken into account, especially where infiltration techniques are proposed in considering a response to the presence of any contaminated land. The Environment Agency needs to be consulted where infiltration is proposed in contaminated land. SuDS should seek to reduce flood risk, reduce pollution and provide landscape and wildlife benefits. Opportunities will be sought to enhance natural river flows and floodplains, increasing their amenity and biodiversity value and a watercourse advice note is being prepared for further guidance
- q. applicants will be required to provide a management plan to maintain SuDS in new developments, and a contribution will be required for maintenance of the scheme/SuDS
- r. onsite attenuation options should be tested to ensure that changing the timing of peak flows does not exacerbate flooding downstream, and
- s. only in exceptional circumstances will surface water connections to the combined or surface water system be permitted. Applicants will need to demonstrate in

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<sup>1</sup> DEFRA 'Flood Risks to People Methodology' (FD2321/TR1 (2006) and 'Framework and Guidance for Assessing and Managing Flood Risk for New Development' (FD2320/TR2' (2005) (As replaced)

consultation with the sewerage undertaker that there is no feasible alternative and that there will be no detriment to existing users.

Applicants will be required to liaise with the lead local flood authority, internal drainage boards and the Environment Agency on any known flood issues, and identify issues from the outset via discussions with statutory bodies.

## Climate change

- t. climate change modelling should be undertaken using the relevant allowances (February 2016) for the type of development and level of risk
- u. safe access and egress should be demonstrated in the 1 in 100 plus climate change event, and
- v. compensation flood storage would need to be provided for any land-raising within the 1 in 100 plus appropriate climate change flood event.

- 6.2 The policy provides a link to the SFRA and its technical findings and guidance, the need to apply a sequential test on any sites not allocated in the VALP, the need to have a site-specific flood risk assessment accompany a planning application, what kind of sustainable drainage systems may be appropriate and the need for climate change modelling, safe access and egress and compensatory flood storage for any land raising.
- 6.3 The policy approach is considered to meet national policy and guidance in regards to the sequential and exception tests. By requiring that development proposals pass both a sequential and exception test where necessary, the policy will direct development to the safest and most sustainable areas of the district. However the policy also acknowledges, and allows for, development in areas of greater flood risk provided that a series of measures are put in place to ensure that the development is made safe (to site users and the wider area) over the course of its lifetime and the vulnerability of the use is suitable to its location.
- 6.4 The VALP site allocation policies all include relevant recommended criteria from the SFRA and these can cover a variety of forms of flooding affecting a site and provide the recommended solution.

## 7. How Feedback from the Draft VALP Consultation Has Informed This Policy

### Flood Risk - Issues Raised at the Draft Plan Stage

- 7.1 The first time a draft of the new policy approach and potential sites was produced was in the summer 2016 VALP Draft Plan stage. Overall, more than 1,600 responses and over 5,000 comments were received.

- 7.2 There were 53 responses in relation to the Flooding policy (14) and its supporting statements. Of these, there were three responses that question if the Plan is compliant with NPPF; two responses gave broad support and there were 48 responses that were neither positive nor negative, but provided comments on the policy wording and/or proposed amendments, or questioned how the policy may be enforced. There were no outright objections to the inclusion of Policy 14.
- 7.3 The Environment Agency (EA) raised concerns that the Plan is not compliant with the requirements of paras 100 and 101 of the NPPF noting that all site allocations in the draft Plan need to be sequentially tested in order to be compliant with this and full justification provided for new developments proposed in Flood Zone 2 or 3. The EA was aware that a Level 1 strategic flood risk assessment (SFRA) had been undertaken, but had not seen this at that stage, and noted it would be keen to see how this report backs up decisions in the draft Plan. In addition, it noted that a (SFRA) Level 2 will need to have been completed as part of the evidence base, including new climate change allowances. Until such work was completed, the EA regarded the policy unsound and not compliant with NPPF.
- 7.4 The EA also noted that there do not appear to be policies against each of the site allocations, designating what each development will need to adhere to in order to make it acceptable. As a large number of sites are proposed in Flood Zones 2 and 3, and an acceptable SFRA is completed, then strict policies will need to be applied in order to ensure flood risk is adequately managed and mitigated.
- 7.5 Buckinghamshire County Council (BCC) also confirmed that without having examined the updated SFRA Level 1, it could not be confident that flood risk has been fully taken into account in considering allocation options and preparation of Plan policies. BCC also noted that an SFRA Level 2 was last undertaken in 2009 and it is likely that this will be required again. BCC questioned if there is sufficient time to undertake such complex work within the timeframes for the final Plan to be agreed. BCC requested that the supporting statements also refer to its local flood risk management strategy (recently refreshed) and the catchment flood management plans produced by the EA.
- 7.6 The Hampden Fields Action Group response noted that the Council had not taken sufficient account of the existing SFRA and specifically registered opposition against paras a and b. It believes the Policy statement should be revised to provide clarity and be more succinct. It also believed that until the SFRA maps were updated, major developments should demonstrate that they would not be impacted on by climate change flooding.
- 7.7 A number of respondents drew attention to their concerns in relation to flooding problems in Ickford, noting that the area is low lying and prone to flooding, and that drainage infrastructure cannot deal with such events. Where housing allocations are to be made, then appropriate assessment would need to be undertaken. Similar sentiments were reflected by other respondents in relation to sites in Bletchley and Marsworth and by Aylesbury Town Council.

- 7.8 Wingrave with Rowsham Parish Council built on this theme, by drawing the Council's attention to the fact that there is a lot of local knowledge in parishes regarding flooding that may not be otherwise evident and that local communities should be involved in the early stages of new planning proposals. A similar point was made by the Buckingham Canal Society, which propose that community groups and other local forum bodies are involved in plans to mitigate local flooding.
- 7.9 The Buckingham and Ouzel IDB noted there should be a coordinated approach to proposed developments in Aylesbury that abut neighbouring areas in order to reduce the flood risk downstream in Loughton Brook, the Ouzel and Water Eaton Brook.
- 7.10 Where SuDS are installed, the Council should require robust maintenance schemes to ensure that they operate over the design life of the development. Anglian Water Services Limited support the use of SuDS to reduce flood risk. The IDB also requested that the Plan should include a policy requiring the installation of water infrastructure prior to development.

### **How the VALP Has Responded towards a Proposed Submission**

- 7.11 Since the draft plan, an SFRA Level 1 and Level 2 have been completed, including close working with the EA, Buckinghamshire CC, the EA and the IDB from the data collection/methodology (meeting 12 May 2016), draft (comments received 11 November, 2, 5 December 2016, meeting 10 January 2017) and final report stages (23 May 2017) . As well as providing the opportunity for comments at these stages, three meetings were held (13 October 2016, 10 January 2017, 13 June 2017 – at AVDC, Buckinghamshire CC and at the EA's offices to discuss matters raised.
- 7.12 All potential sites (from the HELAA version 3, May 2016) were considered in the SFRA Level 1. Forty-five sites were assessed in a Level 2 SFRA. This led to recommendations on particular sites to be taken forward into the VALP and a requirement for sequential testing of any potential site allocations against alternative options. These recommendations have been followed. A sequential test and exception test has been carried out in 2017, fully involving the EA and BCC, and also using a critical friend of the consultants on the SFRA, JBA.
- 7.13 All of the VALP Proposed Submission site allocations passed the sequential test, and exception test where necessary. Section 3 of the sequential test report carries out the sequential test of the VALP allocations and section 4 carries out an exception test for three of the sites.
- 7.14 AVDC has worked on the Proposed Submission Policy (I4) itself inviting comments from BCC and the EA on an early draft (16 August 2017) and the comments received taken into the final version.
- 7.15 Other more detailed matters raised in the Draft Plan consultation response are considered to have been addressed in either the SFRA, the sequential test, site selection for the VALP or Policy I4.

## Sequential Test Stakeholder Responses

- 7.16 There were two stages of engagement with the Environment Agency and Buckinghamshire County Council as the key stakeholders on the sequential test which has informed the site allocations in the VALP Proposed Submission. The third meeting on the SFRA, 13 June 2017, also discussed the initial work on the sequential testing (including methodology). Comments were received from BCC, the EA and critical friend JBA on the sequential test report first draft in July 2017 and second draft in September 2017.
- 7.17 A number of comments of a site-specific nature received were concerned with 'Aylesbury north of A41' (Woodlands, Westonmead Farm, Manor Farm, College Farm) site. All of the points raised by stakeholders through the sequential test in terms of the modelling, extent of flood zones on the site, need for an exception test and justification on why sites at lesser flood risk have not been allocated, have been addressed for version 3 of the sequential test report.
- 7.18 BCC raised at the second draft report stage the issue of newly emerging evidence of groundwater flooding affecting certain sites and how this emerging new evidence (since the SFRA) is being addressed in the sequential test and then through the VALP. This led to the Addendum Note on Groundwater Flood Risk (July 2017) in the Level 2 SFRA final published version to address the matters raised.
- 7.19 Other points raised generally about the thoroughness of the sequential test site search and justification for passing the test/reasons for not taking other sites forward are considered to have been addressed in the final version (v3) of the sequential test report.

## 8. Conclusion

- 8.1 The topic paper outlines and explains how policy I4 and the site allocation policies have evolved from the Council's evidence base (including SFRA and sequential test), the NPPF and guidance and consultation comments received from the Draft Plan stage. The topic paper is intended to provide background information and does not form part of the development plan.
- 8.2 By considering and reflecting national policy and guidance, the local context and public opinion, Policy I4 provides a strong Local Plan policy to direct development towards the most sustainable locations in the district. The policy will enable the Council to safely accommodate all of its housing requirements in the VALP.