FLOOD RISK AND COASTAL EROSION

Introduction

12.90 Flood events are becoming more frequent in the UK and therefore managing flood risk is an increasingly important issue in planning for development and assessing planning applications. In addition local planning authorities need to take into account the effects of climate change over the longer term. Effective management of this risk can be achieved through locational choices, and where necessary appropriate mitigation measures put in place to protect the development.

Box 12.10: What are Flood Zones?

There are three Flood Zones (1, 2 and 3) which are defined by the Environment Agency.

Flood Zones refer to the probability of flooding from rivers and the sea and ignore the presence of existing defences because these can be breached, overtopped and may not be in existence for the lifetime of the development.

Flood Zone 1 is the lowest probability of flooding comprising of land that has less than 1 in 1000 annual probability of river or sea flooding (<0.1%).

Flood Zone 2 is land assessed as having between a 1 in 100 and a 1 in 1000 probability of river flooding (1%-0.1%) or between a 1 in 200 and a 1 in 1000 annual probability of sea flooding (0.5% -0.1)% in any one year.

Flood Zone 3 is the highest risk area and is land assessed as having 1 in 100 years or greater annual probability of river flooding (>1%) or a 1 in 200 or greater annual probability of flooding from the sea in any year (>0.5%). [240]

Local Context

12.91 Flood Risk is a very important issue for the Borough given its coastal location. A total of 380 hectares of land is located within Flood Zones 2 and 3 representing 14.0% of the Borough's land area[241]. It is important that the risk to development from flooding is minimised through the protection of the natural floodplain and the tidal regions.

POLICY LP45: FLOOD RISK AND COASTAL EROSION

1. **The Borough Council will expect development proposals in areas at risk of flooding to demonstrate that they are necessary and can be made safe without increasing the risk of flooding elsewhere in the Borough in accordance with policies in the NPPF. For development proposals on sites not allocated in the Local Plan, it must be clearly demonstrated that the sequential approach for site selection has been followed and the Sequential Test has been met. Where it is necessary to apply the Exception Test, all the associated criteria in the NPPF (or national policy equivalent) must be met to the satisfaction of the Council.**

2. **Within areas of coastal change, proposals will only be permitted if in accordance with the latest Government guidance[242].**

[240] National Planning Policy Framework.
[241] 53 hectares in Flood Zone 2 only and 327 hectares in Flood Zone 3.
[242] This is currently set out in the National Planning Practice Guidance.

3. **A site specific Flood Risk Assessment (FRA) will be required for development proposals on those sites which are 1 hectare or more in Flood Zone 1 and for all development on land within Flood Zones 2 and 3. The FRA must also clearly demonstrate that any residual risks can be safely managed. The development proposal must demonstrate safe access and egress to and from the site. In exceptional circumstances should this not be possible to achieve then clear and detailed justification as to why this is the case will be required. In such cases, the developer will be required to provide an appropriate standard of safe refuge(s) and associated facilities within the development. In these circumstances a robust flood warning and evacuation plan would need to be submitted with the development proposal.**

4. **All new development must ensure there will be no net increase in surface water run-off.**

5. **Where appropriate, new development should incorporate Sustainable Drainage Systems (SuDS) in accordance with policy LP39. Where SuDS are included in the scheme, arrangements must be put in place for their ownership and whole life maintenance and management.**

6. **Buildings and sewerage infrastructure should be designed to incorporate flood resilience and flood resistance measures.**

7. **Developer contributions may be required for the redesign and/or replacement of existing flood defences and the provision of new flood risk management measures as appropriate. Where required, land will be safeguarded from development in order to provide for current or future flood risk management.**

8. **Planning permission will be granted for flood risk management measures provided the scheme does not individually or cumulatively have a detrimental impact on internationally important habitats and that any necessary avoidance and mitigation measures have been secured.**

EXPLANATION OF POLICY LP45

12.92 Managing development and flood risk is an important part of delivering the Council's spatial planning strategy. A fundamental part of managing flood risk is through the avoidance of inappropriate development in areas exposed to a higher risk of flooding or in areas at risk from coastal erosion. The key policy message is to guide the most vulnerable development to those areas of lowest risk and within the site itself, to ensure that the most vulnerable uses should be located to that part of the site where the probability of risk is lowest unless there are overriding reasons why this cannot be the case. To achieve

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http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/coastal-change-management-areas/

this at a local level, the Local Plan adopts the flood risk management hierarchy approach of Assess-Avoid-Manage and Mitigate in order to deliver its long term planning strategy. There is clearly an important role for new development to play through regeneration of key sites such as the Gosport Waterfront which can help deliver improved flood risk management measures that will benefit not only specific development sites but also the wider community by helping to improve the standard of protection available. To support the approach outlined above, the Borough Council in partnership with the Environment Agency prepared 'Guidance for New Development in Flood Risk Areas (More Vulnerable)[243]. This document sets out the specific guidance on the approach for managing flood risk and is relevant for the preparation of site specific Flood Risk Assessments.

12.93 The emerging River Hamble to Portchester Coastal Flood and Erosion Risk Management Strategy is being prepared by the Eastern Solent Coastal Partnership will play a key role in the successful management of flood risk within the Borough.

Sequential Test and Exception Test (Point 1 of policy LP45)

12.94 The Strategic Flood Risk Assessment (SFRA) has been used to inform the allocation process and sites allocated in this Local Plan have undergone the Sequential Test. Apart from the exception sites allocated in this Local Plan (policies LP4, LP6 and LP9A), there may be some instances where development may be allowed in Flood Zones 2 and 3. In these cases the requirements of the Sequential Test and where necessary the Exception Test will need to be met. These development proposals must comply with the requirements of the NPPF (or equivalent) and meet all of the policy points of policy LP45. Developers must demonstrate clearly through a site specific FRA that the development is safe and will not increase flood risk elsewhere in the Borough.

Development and coastal change (Point 2 of policy LP45)

12.95 National policy[244] stipulates that local planning authorities should reduce the risks from coastal change by avoiding inappropriate development in areas likely to be affected by physical changes to the coastline and identifying these as Coastal Change Management Areas (CCMA). A CCMA will only be defined where rates of shoreline change are significant over the next 100 years, taking account of climate change. They will not need to be defined where the accepted shoreline management plan is to hold or advance the line (maintain existing defences or build new defences) for the whole period of the Plan. The North Solent Shoreline Management Plan (SMP) (adopted in 2010), policy for the Borough is 'Hold the Line' and therefore there is no evidence to suggest that a CCMA needs to be identified in the Borough for the plan period 2011-2029. If there is a need to define such an area of the Plan period proposals will be determined in accordance with the latest national guidance.

Flood Risk Assessments (Point 3 of policy LP45)

12.96 One of the Council's key objectives is to ensure that development can be delivered in a safe and sustainable way and to minimise flood risk to and from development. For all development proposals greater than 1 hectare in Flood Zone 1 and for all new development proposed in Flood Zones 2 and 3 irrespective of size; a site specific Flood Risk Assessment (FRA) will be

[243] http://www.gosport.gov.uk/sections/your-council/council-services/planning-section/pre-application-advice/
[244] NPPF and NPPG-for further guidance see http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/coastal-change-management-areas/

required. The Council will expect a site specific FRA to address a number of key factors including the management of surface-water run-off, how the residual risk will be managed over the lifetime of the development as well as the funding and maintenance of the appropriate level of infrastructure. The FRA will be appropriate to the scale and nature of development proposed and need to take account of climate change. A FRA will also be required for new development (including changes of use to a more vulnerable category) where sources of flooding other than tidal and/or fluvial are identified through the Strategic Flood Risk Assessment (SFRA).

12.97 General advice on the preparation of FRAs can be found in the publication 'Guidance for New Development in Flood Risk Areas (More Vulnerable Development)[245] which was prepared by the Borough Council in partnership with the Environment Agency. This document provides advice for developers on specific flood risk issues and what measures should be considered in order to address them in site specific FRAs. The SFRA[246] can be used to guide developers in preparing site specific FRAs and further guidance can also be sought from the Environment Agency's Flood Risk Standing Advice on preparing FRAs. This information is available on the Environment Agency's website. To summarise, when preparing site specific FRAs, the Borough Council wishes to see evidence of how development proposals will address the following issues:

- Follow the flood risk management hierarchy, avoiding areas at highest risk and locating higher vulnerability uses in areas of lowest risk;
- Locate habitable rooms above the design flood level;
- Provide a safe access and egress route wherever feasible;
- Not increase flood risk elsewhere;
- Incorporate flood resilience and resistance measures;
- Remain structurally sound during the design flood event; and
- Demonstrate that residual risk will be managed to a safe level.

Residual Risk and safe development (Point 3 of policy LP45)

12.98 Residual risks are those risks that remain after applying the sequential approach and taking all the mitigation measures necessary. Residual risk should be addressed in a site specific FRA which should be proportionate to the scale of the development proposed and the risks involved. The SFRA can be used as a starting point for undertaking this assessment. This matter needs to be assessed early on in the development process so that appropriate measures to manage the residual risk can be identified and accommodated into the site layout. In accordance with the latest advice in national planning practice guidance, developers must provide evidence to show the proposed development would be safe and residual risk can be overcome. Therefore it is recommended the developer prepares a comprehensive flood risk management strategy for the site which will manage risk for the development across the plan period whilst all phases of development are being delivered. It would generally be expected to deliver a standard of safety to keep people safe from the 0.5% probability tidal flood event in 2115 (to take account of climate change over the lifetime of the

[245] http://www.gosport.gov.uk/sections/your-council/council-services/planning-section/pre-application-advice/
[246] The Council's SFRA can be found on www.gosport.gov.uk/sfra.

development) during which the tide level is predicted to reach 4.3m AOD. National Planning Practice Guidance can provide further information about what matters a comprehensive flood risk management strategy should cover.

12.99 In addition to the above, proposals for development must show safe access and egress to and from the site during the occurrence of a flood event. This must be shown in a site specific FRA which will accompany a planning application. There may be some exceptional circumstances where it may not be possible to provide a safe access route. The Borough Council consider such occasions where this is the case to be very rare. However, where it is clearly and robustly demonstrated by the developer through a site-specific FRA that it would not be possible to deliver a safe access to and from the site then alternative measures will be considered. This could include the provision of an appropriate safe refuge(s) and associated facilities within the development for those people who are unable to leave if a flooding emergency were to occur. In such instances it will be necessary for the developer to prepare a robust flood warning and evacuation plan. It is recommended that advice relating to the arrangements for these matters is sought at the pre-application stage.

12.100 The Borough Council will expect developers to address matters relating to flood warnings and evacuation plans as part of their assessment and the management of residual risk of flooding through site specific FRAs. The NPPF and accompanying guidance, provides some guidance on this issue. The SFRA will provide the basis for assessing the level of any hazard posed should a breach in existing defences occur.

Surface water run-off (Point 4 of policy LP45)

12.101 Surface water management is an important consideration in determining planning applications. Flood Risk Assessments should take account of all types of flooding including surface water flooding. Consideration of surface water flooding should also be addressed for development proposals in all flood risk areas including Flood Zone 1. This should address both the flood risk to the proposed development itself through surface water run-off and the potential impacts on areas adjacent to and downstream of the development. When considering major developments, (10 or more houses, or sites larger than 1ha), the Borough Council will consult Hampshire County Council, as Lead Local Flood Authority, on the management of surface water drainage.

Sustainable Drainage Systems (Point 5 of policy LP45)

12.102 One way of addressing surface water run-off is through the use of Sustainable Drainage Systems (SuDS). Site-specific FRAs should investigate the use of SuDS options to manage surface water where this is practicable. It will be necessary to address issues of adoption, maintenance and long-term management associated with any SuDS proposals. Although in some circumstances the use of SuDS can require substantial land-take, there are however, a variety of SuDS techniques that can be effectively used in urban areas which can significantly contribute towards controlling surface water run-off without the need for large areas of land. These may include use of green roof systems which can be used in buildings with flat roofs, such as schools and industrial units. Permeable pavements (e.g. in driveways and car parks) limit runoff and maximise potential infiltration opportunities. The latest National Planning Practice Guidance and the Construction Industry Research

and Information Association[247] can provide further advice to developers on this matter.

12.103 Ownership and responsibility for the long-term maintenance and management of all the components of SuDS should be identified at the earliest opportunity in the planning process and secured through an appropriate planning condition.

Flood resilience and flood resistance in buildings (Point 6 of policy LP45)

12.104 Flood risk management measures can only manage the risk of flooding they cannot remove it. Where development in higher areas of flood risk is unavoidable, careful consideration needs to be given to the design and layout of the site and other key infrastructure provision located behind flood defences. Flood resilience and resistance techniques should not be regarded as the sole mitigation measure required in terms of managing flood risk. The Council envisage flood resilience and resistance measures being part of a package of appropriate mitigation and reduction in flood risk informed by the latest SFRA and current best practice guidance. The Council welcomes early engagement from developers in the pre-application process to discuss design issues and explore innovative measures to arrive at solutions.

New and/or improved flood risk management measures (Point 7 of policy LP45)

12.105 New developments will be expected to play a key role in contributing towards the effective delivery of the Borough Council's sustainable development objectives providing a robust 'front line' defence as an integral part of the development where appropriate.

12.106 In some instances it may be necessary to secure a financial contribution for the redesign and/or replacement of existing flood defences and the provision of new flood risk management measures. These will usually be provided as part of the proposals and secured by a planning obligation.

12.107 In other circumstances it may be appropriate for the Council to collect developer contributions through the Community Infrastructure Levy to assist in funding improvements to existing and/or the provision of new flood risk management infrastructure. This approach is explained in more detail in policy LP2: Infrastructure which is supported by the Council's Infrastructure Assessment Report and Infrastructure Delivery Plan[248].

12.108 It is important to ensure that flood risk can be managed for the lifetime of the development. This includes, where necessary, the maintenance and enhancement of flood management measures including defences which may need to be provided at a future point in the life of the development. It is important to ensure that should future flood defences be required, sufficient land will be available to allow this to take place. Therefore it will be necessary to plan for this at the design stage of the scheme.

[247] Further advice can be found on the Construction Industry Research and Information Association's website at www.ciria.org

[248] The Infrastructure Assessment Report and IDP can be found at www.gosport.gov.uk/localplan2029

Impacts of new and/or improved flood risk management measures (Point 8 of policy LP45)

12.109 It will be necessary to ensure that new or improved flood risk management measures do not have a detrimental impact on internationally important habitats. The broad principle for such measures has been established in the North Solent Shoreline Management Plan (SMP). The accompanying Habitats Regulations Assessment to the SMP indicated the extent of habitat losses anticipated as a result of implementing SMP policy and that these losses will be compensated by the Region Habitat Creation Programme (RHCP)[249] . There are large areas of the Borough which contain significant habitats (including sites of national and international importance) supporting a wide range of protected species, it is important these areas of nature conservation interest are protected and therefore, applications for flood risk management infrastructure will need to be considered against national policies and the local nature conservation policies in this plan (LP42-LP44).

12.110 Some improvements to identified flood risk management measures may increase the standard of protection to a level over and above that identified through initially the North Solent SMP and the emerging River Hamble to Portchester Coastal Flood and Erosion Risk Management Strategy. Where such improvements are likely to increase the amount of internationally important intertidal habitat lost to coastal squeeze predicted by the SMP, a project-level HRA will be required. The HRA must demonstrate that it is possible to avoid an adverse effect on the internationally important habitat (including areas outside of the designated sites known to be of importance for the relevant important species). This could be achieved for example by avoiding an increased flood defence footprint.

Further information:
Flood Risk and Coastal Change Background Paper ; www.gosport.gov.uk/localplan2029-evidencestudies

PUSH Strategic Flood Risk Assessment (PUSH/Atkins June 2007); and
http://www.gosport.gov.uk/sfra/

Strategic Flood Risk Assessment (GBC 2014).
www.gosport.gov.uk/localplan2029-evidencestudies

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