

Development and Flood Risk Topic Paper

**To support the
Portsmouth Pre-Submission Local Plan 2024
and
Portsmouth Pre-Submission Local Plan
Addendum 2025
combined**

November 2025



Portsmouth
CITY COUNCIL

Contents

1	Introduction.....	2
2	National policy and guidance.....	5
3	Strategic Flood Risk Assessment Level 1	8
4	Sustainability Appraisal	17
5	Strategic Flood Risk Assessment Level 2	19
6	Sequential and Exception Test.....	27
7	Policies PLP31: Flooding and PLP32: Sustainable Drainage Systems.....	28

1 Introduction

1.1 Purpose and scope of this paper

- 1.1.1 This topic paper has been prepared to support the Portsmouth Pre-Submission Local Plan 2024 and the Portsmouth Pre-Submission Local Plan Addendum 2025 combined. It shows how the evidence on flooding, including the Strategic Flood Risk Assessment (SFRA) Level 1 Main Report¹, SFRA Level 1 Part 5², SFRA Level 2³, and the Sequential and Exception Test 2024⁴ and 2025⁵, have informed the policies of the Portsmouth Pre-Submission Local Plan 2024 and the Portsmouth Pre-Submission Local Plan Addendum 2025. This includes Policy PLP31: Flooding, and Policy PLP32: Sustainable Drainage Systems, as well as the development strategy and policies relating to the proposed strategic sites and site allocations.
- 1.1.2 The Portsmouth Local Plan will be examined under the December 2024 NPPF. The majority of this Development and Flood Risk Topic Paper therefore, relates to the December 2024 NPPF, and where references are made to the NPPF it should be taken as referring to the December 2024 NPPF unless otherwise stated.
- 1.1.3 This paper begins by setting out the national policy context for assessing flood risk (section 2) and then discusses the SFRA Level 1 (section 3) including the overarching policy recommendations and how these have been incorporated into Local Plan policies. Section 4 explains how the Sustainability Appraisal (SA) has been used to inform plan-making in relation to flood risk, and section 5 sets out the findings of the SFRA Level 2 and how the recommendations have been transposed into policy. Section 6 discusses the Sequential and Exception Test documents supporting the Local Plan, and section 7 looks at how policies PLP31 and PLP32 have been drafted.

1.2 Portsmouth Geographical Context

- 1.2.1 Portsmouth is the UK's only island City. Whilst this brings an array of benefits with its historic waterfront and popular beach, it does mean that the City is significantly constrained, especially when it comes to growth. The City is significantly compact and there are very few vacant sites or opportunity areas within the administrative boundary that could deliver significant levels of development.
- 1.2.2 Portsmouth has a shoreline with a total length of 44 km. Portsmouth City Council (PCC) is directly responsible for 23 km of Portsmouth's coastline with

¹ <https://www.portsmouth.gov.uk/wp-content/uploads/2024/05/SFRA-Part-1-Main-Report-V6.pdf>

² <https://www.portsmouth.gov.uk/wp-content/uploads/2024/05/SFRA-Part-5-Portsmouth-CC-Final-V3.pdf>

³ <https://www.portsmouth.gov.uk/services/development-and-planning/planning-policy/portsmouth-local-plan-evidence/climate-emergency/> and https://www.portsmouth.gov.uk/wp-content/uploads/2025/11/Level-2-App-A_Figure1_Undef-MaxFloodHazard_UE_1in200_2122.pdf

⁴ <https://www.portsmouth.gov.uk/wp-content/uploads/2024/07/PCC-Sequential-and-Exception-Test-FINAL.pdf>

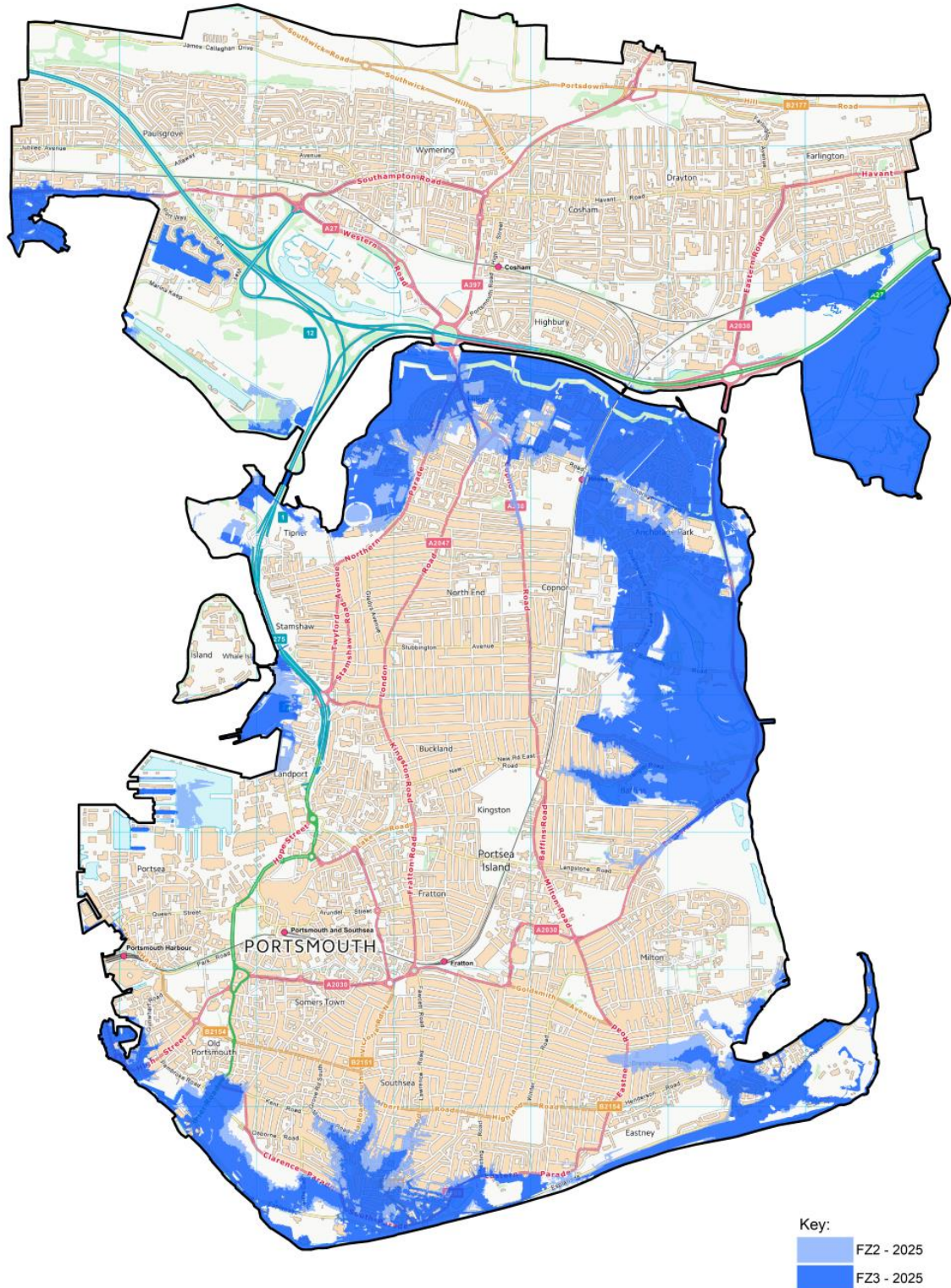
⁵ <https://www.portsmouth.gov.uk/wp-content/uploads/2025/11/PCC-Sequential-and-Exception-Test-2025-Final.pdf>

the remainder in private ownership, predominantly owned by the Ministry of Defence. The open coast (8 km) is the southern and most exposed shoreline of Portsea Island. Portsmouth is low lying with the majority of Portsea Island being less than 10m above sea level.

- 1.2.3 Portsmouth is a City that is exposed to significant degrees of flood risk with large areas to the south of the island and to the north, including the mainland, falling within flood zones 2 and 3, (areas most at risk of extreme flood events). These flood risk areas are expected to expand with sea level rises brought about by future projected climate change. The Environment Agency flood map for planning shows the current extent of flood zones 2 and 3 in Portsmouth as shown over the page on Figure 1, without taking into account future projected climate change. This is based on the latest data from March 2025.

Figure 1 Current extent of flood zones 2 and 3 in Portsmouth (Source: Map prepared by PCC based on Environment Agency flood map for planning GIS layer March 2025)

Flood Map for - Present Day



2 National policy and guidance

2.1 National Planning Policy Framework

- 2.1.1 The latest version of the NPPF was published in December 2024. It sets out the approach to planning for climate change in paragraphs 162-169, and the approach to planning and flood risk within paragraphs 170-182. Coastal change is covered by paragraphs 183-186.
- 2.1.2 Paragraph 162 indicates that: *'plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, [and] coastal change.'* This Topic Paper explains how this has been done, informed by the findings from the various SFRA documents.
- 2.1.3 Paragraph 170 of the NPPF states that: *'Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.'* This Topic Paper will explain how this approach has been taken by PCC in its approach to allocating sites for development.
- 2.1.4 Paragraph 171 states: *'Strategic policies should be informed by a strategic flood risk assessment, and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards.'* This Topic Paper sets out how the various SFRA documents have informed the preparation of the Portsmouth Local Plan, and how advice from the Environment Agency and other relevant flood risk management authorities has been taken into account.
- 2.1.5 Paragraph 172 requires the application of the sequential test, and where necessary the exception test. Paragraphs 173-180 provide further detail on requirements for applying the sequential and exception tests. This Topic Paper sets out how the two tests have been applied with reference to the Council's Sequential and Exception Test documents.
- 2.1.6 Paragraphs 181-182 set out requirements on planning and flood risk for planning applications, particularly in relation to sustainable drainage systems.
- 2.1.7 Annex 3 of the NPPF sets out the Flood risk vulnerability classification of different types of development.

2.2 National Planning Policy Guidance

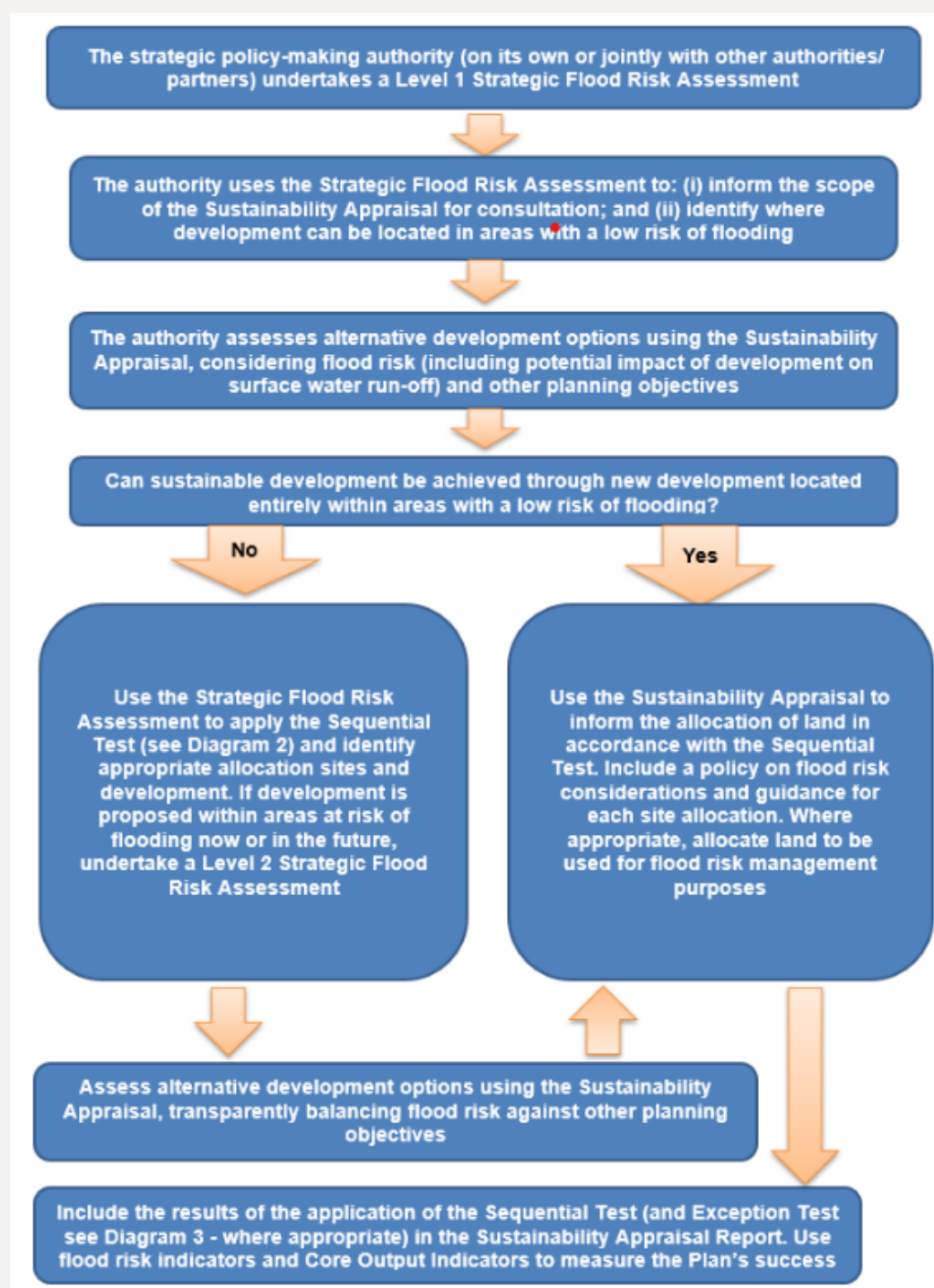
- 2.2.1 National Planning Policy Guidance (PPG) provides further guidance on flood risk and coastal change to complement the NPPF. The PPG includes the definitions of flood zones in Table 1 (Paragraph: 077 Reference ID: 7-077-20220825) and explains that the Environment Agency's Flood Map for

Planning shows river and sea flooding (Paragraph: 001 Reference ID: 7-01-20220825).

- 2.2.2 Paragraph 004 of the PPG (Reference ID-7-004-20220825) sets out that the process to be used in plan-making where flood risk is a consideration is to avoid, control, mitigate, and then manage residual risk. The avoidance element relates to applying the sequential and, if needed, the exception test, substituting lower vulnerability uses for higher vulnerability uses, and suggests using site layout within sites, to locate the most vulnerable aspects of development in areas of lowest flood risk unless there are overriding reasons to prefer a different location. To control risk of flooding it is suggested planning authorities investigate measures for managing flood risk by reference to SFRA's and any programme of flood and coastal erosion risk management schemes which may help identify opportunities. Any remaining flood risk may then need to be mitigated against through flood resistance and resilience measures, which may include providing safe access and escape routes, and flood warnings.
- 2.2.3 Diagram 1 from the PPG as set out over the page in Figure 2, sets out the key steps in taking flood risk into account in preparing plans. This Topic Paper sets out how these various steps have been undertaken, first by setting out the findings of the SFRA Level 1, followed by outlining how the SA has been used to inform plan-making relating to flooding. The findings of the SFRA Level 2 are then set out. Then the results of the sequential and exception tests are discussed.
- 2.2.4 The PPG includes guidance on how to apply the sequential and exception tests, which is discussed in more detail in the PCC Sequential and Exception Test documents. The PPG also includes guidance on sustainable drainage systems, and how they can be used to reduce the causes and impacts of flooding. This has been used to inform policy PLP32: Sustainable Drainage Systems.

Figure 2 Taking flood risk into account in the preparation of strategic policies (Source: PPG Paragraph: 007 Reference ID: 7-007-20220825)

Diagram 1: Taking flood risk into account in the preparation of strategic policies



3 Strategic Flood Risk Assessment Level 1

3.1 Background

- 3.1.1 AECOM were commissioned by PCC on behalf of ten authorities in South Hampshire (the 'Partnership for South Hampshire' (PfSH)) to prepare an SFRA. The PfSH SFRA covers the administrative areas of: Portsmouth City; Havant Borough; Gosport Borough; Fareham Borough; Eastleigh Borough; Southampton City; Winchester City; Test Valley Borough and New Forest District including the New Forest National Park. The PfSH SFRA has been prepared in line with the requirements of the NPPF and PPG and Environment Agency guidance 'How to prepare a Strategic Flood Risk Assessment'⁶.
- 3.1.2 An SFRA Level 1⁷ was published by AECOM in 2024, Part 5⁸ of the SFRA Level 1 focusses on the flood risk posed to Portsmouth with recommendations made throughout for PCC to consider when developing the Local Plan, drafting strategic policies and establishing requirements for development management.
- 3.1.3 All recommendations included within the document have been assessed, and where required, have been included within the emerging Local Plan.
- 3.1.4 Whilst new Environment Agency flood maps for planning have been published since the publication of the SFRA Level 1, it has been agreed with the Environment Agency that there is no need to update the SFRA Level 1 to reflect these. This along with other matters will be confirmed in a forthcoming Statement of Common Ground with the Environment Agency.

3.2 SFRA Level 1 Recommendations

- 3.2.1 Table 1 (below) sets out each recommendation that was put forward within the SFRA Level 1 and how these have been used to inform policy.

⁶ <https://www.gov.uk/guidance/local-planning-authorities-strategic-flood-risk-assessment>

⁷ <https://www.portsmouth.gov.uk/wp-content/uploads/2024/05/SFRA-Part-1-Main-Report-V6.pdf>

⁸ <https://www.portsmouth.gov.uk/wp-content/uploads/2024/05/SFRA-Part-5-Portsmouth-CC-Final-V3.pdf>

Table 1: SFRA Level 1 Part 5 Recommendations and PCC response/action

Recommendation within SFRA Level 1 Part 5	PCC response/action
Recommendation 1 (para 3.3.5): It is recommended that Portsmouth CC use the High Probability flood extent in the Risk of Flooding from Surface Water mapping (Appendix A Figure 3) to delineate fluvial Flood Zone 3b Functional Floodplain for these watercourses. The Low Probability flood extent should be used as an indication of areas that will experience surface water flooding in the future because of climate change.	As there is no river modelling for Portsmouth's watercourses, this was not included within the SFRA Level 1 maps. These areas are very unlikely to be promoted for development and therefore, this recommendation was not taken forward. It has been agreed with the Environment Agency that PCC will not designate any areas of Portsmouth as Flood Zone 3b. The SFRA Level 1 (paragraphs 3.2.11 - 3.2.14) states the following: <i>The Functional Floodplain is defined in the NPPF as 'land where water from rivers or the sea has to flow or be stored in times of flood'. The Functional Floodplain (also referred to as Flood Zone 3b), is not separately distinguished from Flood Zone 3a on the Flood Map for Planning. Rather the SFRA is the place where LPAs should identify areas of Functional Floodplain in discussion with the Environment Agency.</i> <i>The PPG states that the identification of Functional Floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. With this caveat, as a starting point the Functional Floodplain will normally comprise land having a 3.3% AEP or greater annual probability of flooding (1 in 30 year), with existing flood risk management infrastructure operating effectively.</i> <i>Portsmouth is largely protected from flooding from the sea during the 3.3% AEP event due to the presence of flood defences. Modelling of the 3.3% AEP event has been undertaken to identify areas at more frequent risk of flooding from the sea. (It is noted that this modelled scenario just applies the still water level and does not account for wave action). These areas are shown in Appendix A Figure 11 and include:</i> <i>Northern part of Trafalgar Wharf.</i> <i>The northern part of Portsea Island, along Hilsea Moat and a small area to the east close to Buckby Lane. Flood defence improvement works are planned for Ports Creek (refer to Section 6.1) which are due for</i>

Recommendation within SFRA Level 1 Part 5	PCC response/action
	<i>completion in 2025. Once these are in place, the north of Portsea Island will be protected during the 3.3% AEP event.</i> <i>Part of Portsmouth Point, Old Portsmouth.</i> <i>The northern coastline of Eastney Lake, adjacent to the Eastney and Milton Allotments and Milton Nature Reserve.</i> <i>Land is not needed to store tidal flood water given the proximity of the wider Solent. Therefore, a review of these areas has been undertaken in the light of these local circumstances and in agreement with the Environment Agency these areas will be included within the Flood Zone 3a definition and no Flood Zone 3b associated with the sea will be defined.</i>
Policy Recommendation 2 (para 6.2.4): Safeguard land for flood defence maintenance and future upgrades within: Reach 1 – 3 and Flood Cell 1 – 7. Safeguard an adequate undeveloped buffer strip alongside tidal flood defence structures to allow future management and maintenance of flood defence structures. Developers and applicants should engage effectively to ensure an appropriate buffer is provided. Each case will be assessed on its own merits taking into consideration site characteristics and the management measures in place. Development adjacent to the coastal frontage should facilitate the delivery of improvements to and maintenance of flood defences, through site design and financial contribution.	This policy recommendation was originally drafted with a specific development set back requirement of 16m from flood defences. This is not possible within Portsmouth given the limited land availability and the fact that some existing development falls within this buffer. It was decided that the setback would be determined on a case-by-case bases following robust evidence. The Environment Agency confirmed they were content with this approach. This recommendation was translated into Policy PLP31, criterion (1e)
Policy Recommendation 3 (para 6.3.4): Safeguard an adequate undeveloped buffer strip alongside fluvial and tidal Main Rivers or flood defence structures and prioritise riverside restoration. Policy Recommendation 4 (para 6.3.7): Safeguard an undeveloped buffer strip alongside ordinary watercourses for maintenance purposes. Developers should prioritise riverside restoration as part of development adjacent to ordinary watercourses.	Recommendations 3 and 4 focus on the protection of main rivers and ordinary water courses (streams, ditched, drains, cuts etc). In particular, ensuring there is an adequate buffer strip to allow for maintenance and restoration. The SFRA identifies two main rivers (Great Salterns Drain in the eastern part of Portsea Island, and Farlington Marshes Gutter which drains Farlington Marshes and notable property to the north of the railway line to the Langstone Harbour). The location of these does not allow for any development within close proximity and therefore, the watercourses are protected by other policies and designations within the Local Plan.

Recommendation within SFRA Level 1 Part 5	PCC response/action
	The Surface Water Management Plan (SWMP) notes that there are no ordinary watercourses apart from widespread short lengths of land drains and ditches, which do not have any known history of residential flooding, however flooding of the golf course has occurred from smaller ditches. Despite there being no significant risk of development in the proximity of main rivers and ordinary watercourses. Criterion 1e of Policy PLP31 refers to the protection of land for future flood defences, flood risk management or maintenance of any watercourse, and does not just address coastal flooding.
Policy Recommendation 5 (para 6.4.5): Where development is planned in urban areas, opportunities for de culverting watercourse sections should be sought to bolster local channel capacity and conveyance.	Although the land on which there are culverts in Portsmouth are not prime development locations, this recommendation was included within policy to ensure robustness. In the case of development occurring within the location of a culvert, it would be significantly easier to maintain an open ditch than a buried pipe. This recommendation is therefore transposed into Policy PLP31, criterion 4.
Policy Recommendation 6 (para 6.5.4): Portsmouth CC should appraise the options for creating flood storage areas on the eastern side of Portsea Island and in the Farlington area. Policy Recommendation 7 (para 6.5.10): Where proposed development results in a change in building footprint, land raising, or other structures, that impact upon the ability of the fluvial floodplain to store water, floodplain compensation must be provided on a level for level, volume for volume basis on land which does not already flood and is within the site boundary.	Flood Storage Areas (FSAs) are natural or man-made areas that temporarily fill with water during periods of high river level, retaining a volume of water which is released back into the watercourse after the peak river flows have passed. The overarching aim of these recommendations is to ensure that following development, there is no increase to flood risk elsewhere. As stated above, development potential is very limited in close proximity to rivers. In the unlikely circumstance that development does occur within these locations, Policy criterion 1f of policy PLP31 requires development not to result in the increase of flood risk elsewhere and where possible will reduce the overall level of flood risk.
Policy Recommendation 8 (para 6.6.3): Seek opportunities to implement natural flood management techniques in the administrative area such as the planting of riparian woodland and wider catchment woodland, to attenuate surface water runoff and groundwater recharge, both in, and preferably upstream of areas that contain vulnerable receptors at risk of groundwater, surface water, or fluvial	PCC support this recommendation and have reflected that in Policy PLP31, criterion 3. <i>'Opportunities should be sought to implement natural flood management techniques to attenuate surface water runoff and groundwater discharge.'</i>

Recommendation within SFRA Level 1 Part 5	PCC response/action
flooding. There is potential for riparian woodland at Farlington Marshes, on the shoreline at Hilsea Bastion Gardens, and around Great Salterns Lake. There is also potential for wider catchment woodland to be created at Great Salterns Recreation Ground, Tangier Park, and Milton Common.	
Policy Recommendation 9 (para 6.6.7): Maximise the flood attenuation benefits conferred by its existing GI features in Farlington, Horsea Island, Hilsea (Alexandra Park), Southsea (Southsea Common), and on the eastern side of Portsea Island (Great Salterns Recreation Ground, Tangier Park, and Milton Common), through the enlargement of existing, and creation of new woodlands.	Many greenspaces within Portsmouth are protected and therefore will not be built on. Policies PLP45: Open Space and PLP46: Local Green Spaces from the Portsmouth Pre-Submission Local Plan 2024 seek to protect existing open space from development; to ensure that new open space provision is secured and to designate and protect Local Green Spaces which are considered 'demonstrably special' to the local community. Policy PLP41 (Trees and Hedgerows) seeks to maintain trees across the City and increase the City's tree canopy cover to meet the Council's tree charter of 30,000 new trees planted. If there are appropriate locations within the areas mentioned in the SFRA, these will be considered. Policies under PLP38 also look to enhance and conserve green infrastructure and the Green Grid.
Policy Recommendation 10 (para 6.7.11): Strengthen the surface water runoff requirements for proposed developments in parts of the Portsmouth CC area that are at the greatest risk of surface water flooding in accordance with risk of flooding from surface water mapping (Appendix A Figure 3). In these locations it is recommended that Portsmouth CC set a requirement for a net reduction in surface water runoff rates for all developments.	This recommendation has been taken forward and included within Policy PLP32: Sustainable Drainage Systems (criterion 2). <i>"Development proposals in areas at risk of flooding from surface water will be permitted where the net surface run off is actively reduced when compared to pre-development levels."</i>
Policy Recommendation 11 (para 6.7.13): In urban areas, encourage the use of permeable surfacing. Discourage the paving or covering of permeable surfaces with impermeable surfacing.	This recommendation has been taken forward and included within Policy PLP32 (criterion 3). The policy seeks to minimise the amount of hard landscaping in all applications. Due to Portsmouth being a heavily dense and urbanised City, the cumulative impact of even minor scale

Recommendation within SFRA Level 1 Part 5	PCC response/action
	development could have a detrimental effect upon the level of surface water run-off.
Policy Recommendation 12 (para 6.8.4): All new development should not adversely affect flood routing and thereby increase flood risk elsewhere. Opportunities should be sought within the site design to make space for water.	This recommendation focuses on development not increasing the risk of flood elsewhere in the City. This is covered by National Policy (NPPF Paragraph 170 and 178(b)) and criterion 1(f) of Policy PLP31 of the Portsmouth Local Plan.
Policy Recommendation 13 (para 6.9.1): New development should not result in an increased risk of groundwater flooding elsewhere. Where development is proposed that involves significant works below ground and/or changes to drainage, further assessment (for example through a Hydrogeological Risk Assessment (HRA)) may be required to determine the potential impact on groundwater and identify proposed mitigation measures.	Criterion 1(a) of policy PLP31 seeks to reduce the impact of all types of flooding within the City. Criterion 1(f) of Policy PLP31 (The development will not result in the increase of flood risk elsewhere and where possible will reduce the overall level of flood risk) also covers all types of flood risk including groundwater flooding. The supporting text to the Policy (in particular criterion 5 which focusses on basement development) provides further detail on the supporting assessments that may be required including a Hydrogeological Risk Assessment. Habitable rooms underground are not permitted within Portsmouth.
Recommendation 14 (para 6.10.3): As part of their Sites Allocation process, Portsmouth CC should consult with Southern Water to determine any areas with sewer capacity issues. Redevelopment provides an opportunity to separate combined sewer systems and reduce the causes and impacts of flooding associated with sewer systems and local surface water runoff.	PCC have engaged with Southern Water throughout the production of the Regulation 19 policy and have a signed Statement of Common Ground ⁹ setting out areas of agreement. The Infrastructure Delivery Plan also notes where improvements to the foul water network are required. PCC have taken on board Southern Water's Regulation 18 comments which have helped formulate Policy PLP31 and PLP32.
Recommendation 15 (para 6.11.8): Portsmouth CC should review the flood risk information within this SFRA with their emergency planning team. Proposals for development that are likely to increase the number of people living or working in areas of flood risk require careful consideration, as they could increase the scale of any	PCC have engaged with their emergency planning team throughout the production of the SFRA Levels 1 and 2. Comments from the emergency planning team have been incorporated where necessary. The SFRA Level 2, and associated Update expands on the access point. Coastal Partners have confirmed that the North Portsea Island Scheme delivers a 1/500

⁹ https://www.portsmouth.gov.uk/wp-content/uploads/2024/09/Statement-of-Common-Ground-PCC_Southern-Water-Septemeber-2024-FINAL-signed.pdf

Recommendation within SFRA Level 1 Part 5	PCC response/action
evacuation required. The tidal modelling shows that access routes off Portsea Island that are dry or Low hazard are available for the design event (0.5% AEP) for the year 2055, but not available during the design flood event (0.5% AEP) for the year 2122. (It is noted that this may change when the flood defence schemes at Eastern Road, Kendall's Wharf and Ports Creek are completed). Further discussion of safe access is included in Section 7.5.	year standard of protection for 100 years. This provides protection to an extreme flood event for a long period of time. In planning terms, the expectation for developers is to mitigate against the 1/200 year event. So there is a better standard in place here. When the scheme is fully complete in 2026, this will protect the Eastern Road access and also the A3.
Policy Recommendation 16 (para 7.1.1): Apply a sequential approach to site planning.	This is outlined in the PPG and has been applied in Policy PLP31 and its supporting evidence base.
Policy Recommendation 17 (para 7.2.1): Location of development must take into account the vulnerability of users.	Portsmouth's Sequential and Exception Test takes into account the vulnerability classification of development. Those which are considered more vulnerable and at risk of flooding have had the exception test applied to them.
Policy Recommendation 18 (para 7.3.1): All development within Flood Zones 2 and 3 should set finished floor levels above the design flood level (0.5% AEP) including an appropriate allowance for climate change and freeboard. More Vulnerable and Highly Vulnerable development should apply the upper end climate change allowance. Less Vulnerable development should apply the higher central climate change allowance. Policy Recommendation 19 (para 7.5.1): New development must have safe access / escape during the design flood (0.5% AEP) including an appropriate allowance for climate change. More Vulnerable and Highly Vulnerable development should apply the upper end climate change allowance. Less Vulnerable development should apply the higher central climate change allowance.	Policy criterion 1(j) and (k) of Policy PLP31 address the need to deliver appropriate finished floor levels; access/escape routes; places of safety and emergency planning. The policy refers applicants to the SFRA Level 1 and 2 to seek more detail where it is required.

Recommendation within SFRA Level 1 Part 5	PCC response/action
Policy Recommendation 20 (para 7.6.1): New development must be designed to include a place of safety during extreme flood conditions (0.1% AEP) including an allowance for climate change. Policy Recommendation 21 (para 7.7.2): For all development proposed in Flood Zone 2 or 3, an Emergency Plan should be prepared by developers to demonstrate what actions site users will take before, during and after a flood event to ensure their safety, and to demonstrate that their development will not impact on the ability of the local authority and the emergency services to safeguard the current population. For sites in Flood Zone 1 with access routes affected by flooding, it may also be necessary to prepare an Emergency Plan.	
Policy Recommendation 22 (para 7.8.1): Where development or redevelopment is proposed in areas at risk of flooding, flood resilience measures should be implemented.	This recommendation is covered by Policy PLP31 criterion 1(g): <i>Appropriate flood prevention, protection and resilience measures necessary and appropriate to specific requirements of the proposal site and any other areas potentially impacted by the proposed development have been sensitively incorporated. These will be maintained for the lifetime of the development. Flood management and mitigation measures should be informed by the PfSH SFRA Level 1 and Portsmouth SFRA Level 2.</i>
Policy Recommendation 23 (para 7.9.1): It is recommended that Portsmouth CC incorporate expectations for future development with respect to flood risk into any emerging local design codes. The local design code would need to accord with the National Model Design Code (parts 1 and 2) requirements on water and drainage and follow the approach to flood risk management set out in PPG paragraphs 003 and 004 (Assess, Avoid, Control, Mitigate, Manage), ensuring all development will be appropriately flood resistant and resilient, with reference to the CIRIA Property Flood Resilience Code of Practice.	PCC are yet to deliver design codes, however, these will cover flood risk when delivered.

Recommendation within SFRA Level 1 Part 5	PCC response/action
The local design code should be prepared with input from the Environment Agency and Portsmouth CC in their capacity as the LLFA.	

4 Sustainability Appraisal

- 4.1.1 The Sustainability Appraisal (SA) is a tool which should be used to help take into account flood risk in plan-making as set out in Figure 2 of this document (Diagram 1 from the PPG). The diagram from Figure 2 sets out the various different ways the SA should be used for this purpose.
- 4.1.2 Firstly, the diagram indicates that the strategic policy-making authority should prepare an SFRA, and secondly this should be used to inform the scope of the SA. The SFRA Levels 1 and 2 have been used to inform the various Portsmouth SA documents. The most recent SFRA Level 1 documents were only published in 2023/24, so they have only informed SA documents after that date; any SA documents published prior to that were informed by earlier versions of the SFRA, for example, the SA Scoping Report¹⁰ references the SFRA dated 2016¹¹. The 2016 SFRA also informed the Regulation 18 SA Report¹². The SFRA Level 2 was originally published in April 2024 so only informed SA documents published after that. The SFRA Level 2 was updated in November 2025.
- 4.1.3 The diagram then indicates that the authority should assess alternative development options using the SA, considering flood risk and other planning objectives. Alternative development options relating to flooding have been considered in Portsmouth's SA. The SA Report¹³ accompanying the Portsmouth Pre-Submission Local Plan 2024 has strategically reviewed the need for development, including a review of four city-wide spatial options for housing growth based on flood risk. This process led to the conclusion that sustainable development cannot be achieved in Portsmouth through new development located entirely within areas with a low risk of flooding. Further detail on the assessment of the different options is presented in the Portsmouth Sequential and Exception Test document 2025.
- 4.1.4 In circumstances where sustainable development cannot be achieved through new development located entirely within areas with a low risk of flooding (as is the case in Portsmouth), the diagram indicates that the SFRA should be used to apply the sequential test and identify appropriate allocation sites and development (this is outlined in section 6 of this paper). If development is proposed within areas at risk of flooding now or in the future, an SFRA Level 2 should be undertaken (this is outlined in section 5 of this paper).
- 4.1.5 The next step in the diagram requires alternative development options to be assessed using the SA, transparently balancing flood risk against other

¹⁰ <https://www.portsmouth.gov.uk/wp-content/uploads/2020/05/Sustainability-Appraisal-scoping-report.pdf>

¹¹ <https://www.push.gov.uk/wp-content/uploads/2018/05/Flood-Risk-Assessment-Update-2016.pdf>

¹² https://www.portsmouth.gov.uk/wp-content/uploads/2021/09/Portsmouth-LDP-SA_Interim-Reg-18-SA-Report_publication-draft_140921_compressed.pdf

¹³ https://www.portsmouth.gov.uk/wp-content/uploads/2024/07/PLP_SA_FINAL-1.pdf

planning objectives. The Portsmouth SA has assessed various alternative development options against the ten SA objectives, including objective SA4: To tackle climate change, flooding and coastal change in Portsmouth.

- 4.1.6 The diagram indicates that the results of the application of the sequential test (and exception test where appropriate) are to be included in the SA Report. The SA Reports have been informed by the conclusions of the sequential test. The SA has been used to inform the application of the exception test. In the Sequential and Exception Test document 2024, high level SA GIS analysis of the strategic sites and site allocations was used, which resulted in a quantitative analysis of the sites based on various constraints and opportunities. The results of this were used to measure the wider sustainability benefits of each of the sites, which is the first part of the exception test. The SA GIS analysis was not updated to support the Portsmouth Pre-Submission Local Plan Addendum 2025, and so the Sequential and Exception Test document 2025 uses the assessment of the various allocation policies from the SA Report accompanying the Portsmouth Pre-Submission Local Plan Addendum 2025¹⁴ to assess the wider sustainability benefits of each of the sites.
- 4.1.7 The development strategy and all strategic sites and site allocations have been assessed through the SA process, including against objective SA4: To tackle climate change, flooding and coastal change in Portsmouth. As required by the diagram, allocation policies have included requirements relating to flood risk as appropriate.

¹⁴ https://www.portsmouth.gov.uk/wp-content/uploads/2025/10/Portsmouth-Local-Plan-Addendum-SA-Report-Update_v2_25-Sept_updated-FINAL.pdf

5 Strategic Flood Risk Assessment Level 2

5.1 Background

- 5.1.1 A Portsmouth specific SFRA Level 2 was prepared by AECOM to support the Portsmouth Pre-Submission Local Plan 2024 which was originally published in April 2024. The SFRA Level 2 was then updated in November 2025 to support the Portsmouth Pre-Submission Local Plan Addendum 2025. These documents assessed the flood risk posed by all proposed strategic sites and site allocations (excluding Horsea Island Strategic Open Space due to there being no built development proposed here) due to the unique nature of Portsmouth and the flood risk it faces. Even those sites which were not located within a tidal flood zone were assessed, in order to ensure that in the event of a flood (elsewhere in the City) development remains safe for occupants. The City is highly dense and compact and therefore, it is easy for there to be knock on effects of nearby flooding, including issues around access and escape.
- 5.1.2 The update to the SFRA Level 2 was prepared to support the Portsmouth Pre-Submission Local Plan Addendum 2025 to reflect changes made to site specific policies, including the amended boundary for Tipner West. The site descriptions and proposed development sections were updated to reflect the Portsmouth Pre-Submission Local Plan Addendum 2025, and the maps for Tipner West were updated to reflect the new site boundary, but the recommendations as a whole did not change. It was agreed with the Environment Agency that there was no need to update the SFRA Level 2 to reflect changes to the Environment Agency flood map for planning made in March 2025.

5.2 SFRA Level 2 Recommendations

Table 2 over the page sets out each recommendation that was put forward within the SFRA Level 2 (2025) and how the evidence was used to inform policy. The paragraph numbers from the SFRA Level 2 have been provided, indicating where the recommendations have come from.

Table 2: SFRA Level 2 (2025) recommendations and PCC response/action

Recommendation within SFRA Level 2	Strategic site/site allocation the recommendation applies to	PCC response/action
Policy Recommendation 1 (Sequential Approach) A sequential approach to land use planning should be applied <i>within</i> the site. The most vulnerable aspects of the development (residential development) should be steered towards the areas of lowest risk unless there are overriding reasons to prefer a different location.	• Tipner West (SFRA L2 para 2.6.1-2.6.2) • Tipner East (SFRA L2 para 3.6.1-3.6.2) • Lakeside North Harbour (SFRA L2 para 4.6.1-4.6.2) • Portsmouth City Centre (SFRA L2 para 5.6.1) • St James' & Langstone Campus (SFRA L2 para 7.6.1-7.6.2) • Port Solent (SFRA L2 para 9.6.1-9.6.3) • Fraser Range (SFRA L2 para 11.6.1-11.6.2)	PCC Response: National policy and guidance requires the sequential approach in general to be taken to all development. More specifically, the NPPF paragraph 181 states that development should only be allowed in areas at risk of flooding where [...] it can be demonstrated that within the site, the most vulnerable development is located in areas of lowest flood risk. There is no need for PCC to repeat national policy in the Local Plan, therefore no action has been taken as a result of this recommendation.
Policy Recommendation 2 (Control Measures): Various control measures could be considered for each site including: 1. Raising land levels above the design flood level for the More Vulnerable land uses and key infrastructure, e.g., residential zones and main roads within the developed area. 2. Providing raised (multi-functional) flood defences around the coastal perimeter (and where necessary to adjoining adjacent areas to prevent 'back door' flooding). 3. Providing set-back/secondary defences around sheltered water basins for Less Vulnerable land	• Tipner West (1-4) (SFRA L2 para 2.6.9) • Tipner East (1-4) (SFRA L2 para 3.6.9) • Lakeside North Harbour (1 & 5) (SFRA L2 para 4.6.11) • St James' & Langstone Campus (1 & 4) (SFRA L2 para 7.6.10) • Port Solent (1, 4 and 5) (SFRA L2 para 9.6.11) • Fraser Range (1, 4 and 5) (SFRA L2 para 11.6.8)	PCC Response: Criterion 1(g) of policy PLP31 states the following: <i>Appropriate flood prevention, protection and resilience measures necessary and appropriate to specific requirements of the proposal site and any other areas potentially impacted by the proposed development have been sensitively incorporated. These will be maintained for the lifetime of the development. Flood management and mitigation measures should be informed by the PfSH SFRA Level 1 and Portsmouth SFRA Level 2.</i> The supporting text to this policy criterion states: <i>It is appreciated that it may not always be possible to locate development outside areas at risk from</i>

Recommendation within SFRA Level 2	Strategic site/site allocation the recommendation applies to	PCC response/action
uses, e.g., commercial, marine employment or leisure related uses. 4. Future-proofing the coastal flood and erosion defences and drainage to allow for climate change impacts including sea-level rise, increased surge and wave severity and rainfall intensity. 5. Land raising to provide a safe access route to the site and for evacuation of people during extreme flood events		<i>flooding in Portsmouth. If this is the case, it is still important for applicants to seek opportunities and measures to reduce the causes and impacts of flooding. Management opportunities to control flood risk should be sought to reduce the overall level of flood risk in the application site and beyond. These should be sensitively incorporated taking into consideration the character, landscape and biodiversity of the area.</i> Specific wording has been included within site specific policies for strategic sites and site allocations.
Policy Recommendation 3 (Wave Overtopping): Once the proposed development design is known, including proposed land raising and/or flood defences, detailed site specific wave overtopping calculations will need to be undertaken along with a suitable calculation for appropriate freeboard that accounts for uncertainty. Measures will need to be identified to contain and discharge water from overtopping whilst keeping people safe, in addition to surface water which may be subject to tide locking during high tides.	• Tipner West (SFRA L2 para 2.6.12) • Tipner East (SFRA L2 para 3.6.12) • St James' & Langstone Campus (SFRA L2 para 7.6.12) • Fraser Range (SFRA L2 para 11.6.9)	PCC response Criterion 1(b) of policy PLP31 (flooding) states: <i>Development proposals will be permitted where they are accompanied by a site specific Flood Risk Assessment where required by national policy that is informed by the PfSH SFRA Level 1 and Portsmouth SFRA Level 2.</i> Any site-specific flood risk assessment is therefore expected to undertake wave overtopping calculations.
Policy Recommendation 4 (Finished Floor Levels): Finished floor levels should be set above the design flood level (0.5% AEP including an appropriate allowance for climate change) plus freeboard. More Vulnerable and Highly Vulnerable development should apply the upper end climate change allowance. Less	• Tipner West (SFRA L2 para 2.6.13) • Tipner East (SFRA L2 para 3.6.13) • Lakeside North Harbour (SFRA L2 para 4.6.12)	PCC response Criterion 1(j) of policy PLP31 (Flooding) states: <i>Development proposals will be permitted where appropriate safety measures have been taken in accordance with the SFRA Level 1 and 2 specifically in relation to finished floor levels,</i>

Recommendation within SFRA Level 2	Strategic site/site allocation the recommendation applies to	PCC response/action
Vulnerable development should apply the higher central climate change allowance.	• Portsmouth City Centre (SFRA L2 para 5.6.7) • St James' and Langstone Campus (SFRA L2 para 7.6.13) • Port Solent (SFRA L2 para 9.6.12) • St John's College (SFRA L2 para 10.6.4) • Fraser Range (SFRA L2 para 11.6.10) • The News Centre (SFRA L2 para 12.6.3)	<i>access/escape routes, places of safety and emergency planning;</i>
Policy Recommendation 5 (Access and Escape): New development must have safe access / escape during the design flood (0.5% AEP) including an appropriate allowance for climate change. More Vulnerable and Highly Vulnerable development should apply the upper end climate change allowance. Less Vulnerable development should apply the higher central climate change allowance. The order of preference is as follows, there must be robust evidence to show that all effort has been made to provide the most preferred option: 1) Safe dry route for people and vehicles. 2) Safe dry routes for people. 3) Route for people where flood hazard is low. 4) Route for emergency vehicles where flood hazard is low.	• Tipner West (SFRA L2 para 2.6.14) • Tipner East (SFRA L2 para 3.6.14) • Lakeside North Harbour (SFRA L2 para 4.6.14) • Portsmouth City Centre (SFRA L2 para 5.6.8) • Fratton Park & the Pompey Centre (SFRA L2 para 6.6.2) • St James' & Langstone Campus (SFRA L2 para 7.6.14) • Port Solent (SFRA L2 para 9.6.13) • St John's College (SFRA L2 para 10.6.5)	PCC response Criterion 1(j) of policy PLP31 (Flooding) states: <i>Development proposals will be permitted where appropriate safety measures have been taken in accordance with the SFRA Level 1 and 2 specifically in relation to finished floor levels, access/escape routes, places of safety and emergency planning;</i> Criterion 1(k) states: <i>Robust evidence must show that all efforts have been made to deliver safe access and egress routes on sites at risk of flooding. Where truly exceptional circumstances dictate this not to be feasible, it must be clearly detailed in a site specific FRA how the risks of flooding can be safely managed. Information on duration, hazard and frequency of flooding must be provided for the development lifetime.</i>

Recommendation within SFRA Level 2	Strategic site/site allocation the recommendation applies to	PCC response/action
	• Fraser Range (SFRA L2 para 11.6.11) • The News Centre (SFRA L2 para 12.6.4) • Somers Orchard (SFRA L2 para 13.6.2)	
Policy Recommendation 6 (Place of Safety): New development must be designed to include a place of safety during extreme flood conditions (0.1% AEP) including an allowance for climate change. Tidal flooding occurs during exceptionally high tides or storm surges. As a result, there is advance warning of such events. The Environment Agency aim to provide a minimum 6 hours warning time for tidal flooding. As a result, it would be possible to evacuate properties prior to any significant tidal flooding taking place. However, places of safety play an important role where, for whatever reason, evacuation in advance of flooding is not achieved, or in cases where flooding occurs because of a failure (e.g., breach) in the flood defences. Places of safety should be designed to facilitate rescue in case emergency care is needed or if it's unlikely to be safe for occupants/ users to wait until flood waters have receded sufficiently.	• Tipner West (SFRA L2 para 2.6.16-2.6.18) • Tipner East (SFRA L2 para 3.6.16-3.6.18) • Lakeside North Harbour (SFRA L2 para 4.6.16-4.6.18) • Portsmouth City Centre (SFRA L2 para 5.6.13-5.6.15) • St James' & Langstone Campus (SFRA L2 para 7.6.19-7.6.12) • Port Solent (SFRA L2 para 9.6.15-9.6.17) • St John's College (SFRA L2 para 10.6.12-10.6.14) • Fraser Range (SFRA L2 para 11.6.19-11.6.21) • The News Centre (SFRA L2 para 12.6.8-12.6.10)	PCC response Criterion 1(j) of policy PLP31 (Flooding) states: <i>Development proposals will be permitted where appropriate safety measures have been taken in accordance with the SFRA Level 1 and 2 specifically in relation to finished floor levels, access/escape routes, places of safety and emergency planning;</i>
Policy Recommendation 7 (Emergency Plans): Developers must prepare Emergency Plans for occupants of the sites to set out the response in the	• Tipner West (SFRA L2 para 2.6.20)	PCC response Criterion 1(j) of policy PLP31 (Flooding) states: <i>Development proposals will be permitted where</i>

Recommendation within SFRA Level 2	Strategic site/site allocation the recommendation applies to	PCC response/action
event of a flooding warning with respect to safe access routes and places of safety. Emergency Plans should be agreed with Portsmouth CC and key emergency services. Refer to Level 1 SFRA Section 7.8 for further details.	• Tipner East (SFRA L2 para 3.6.20) • Lakeside North Harbour (SFRA L2 para 4.6.20) • Portsmouth City Centre (SFRA L2 para 5.6.17) • St James' & Langstone Campus (SFRA L2 para 7.6.23) • Port Solent (SFRA L2 para 9.6.19) • St John's College (SFRA L2 para 10.6.16) • Fraser Range (SFRA L2 para 11.6.23) • The News Centre (SFRA L2 para 12.6.12) • Somers Orchard (SFRA L2 para 13.6.8)	<i>appropriate safety measures have been taken in accordance with the SFRA Level 1 and 2 specifically in relation to finished floor levels, access/escape routes, places of safety and emergency planning;</i>
Policy Recommendation 8a) (Surface Water Management): Proposals should deliver a net reduction in surface water runoff rates; demonstrate sustainable approaches to the management of surface water making use of SuDS; and incorporate soft landscaping, planting, and permeable surfacing. Due to the condition of the combined sewer system, a betterment of surface run off should be delivered and no net increase in surface water entering the combined system as a minimum.	• Portsmouth City Centre (SFRA L2 para 5.6.19) • Fratton Park & the Pompey Centre (SFRA L2 para 6.6.9) • St John's College (SFRA L2 para 10.6.18) • The News Centre (SFRA L2 para 12.6.14) • Somers Orchard (SFRA L2 para 13.6.10)	PCC response Due to the importance of surface water flooding within Portsmouth, the Portsmouth Pre-Submission Local Plan 2024 includes a separate policy on Sustainable Drainage Systems (PLP32). The SFRA Level 2 recommends that those sites inland (and at risk of surface water flooding) should deliver a net reduction in surface water run off rates due to the condition of the combined system. The SFRA Level 2 assumes the remaining sites located adjacent to

Recommendation within SFRA Level 2	Strategic site/site allocation the recommendation applies to	PCC response/action
Policy Recommendation 8b) (Surface Water Management): New development should discharge runoff to the sea following suitable treatment. Proposals for surface water management should make provision for storage during high tide events, when the surface water drainage may be subject to tide locking.	• Tipner West (SFRA L2 para 2.6.31) • Tipner East (SFRA L2 para 3.6.22) • Lakeside North Harbour (SFRA L2 para 4.6.21) • St James' & Langstone Campus (SFRA L2 para 7.6.25) • Port Solent (SFRA L2 para 9.6.21) • Fraser Range (SFRA L2 para 11.6.25)	the sea can dispose of excess run-off into the adjacent waterbody. This has been reflected in Policy Criterion 1 of Policy PLP32 which states: <i>Development proposals will be permitted where they ensure the surface run-off rates from the proposed development do not exceed the existing surface run-off rates, with betterment preferred.</i> This is a requirement for all sites within the Local Plan. Criterion 5(c) of Policy PLP32 states: <i>Surface water will be separated from foul water flows within the site or it may be discharged into the sea, a watercourse or surface water sewer. If all options have been robustly demonstrated not to be possible, the post development rate of discharge of surface water to the combined system should be no greater than the existing rate. Surface water connections to the foul sewer system will not be accepted.</i> This criterion requires development to follow the drainage hierarchy and discharge run off into the sea.
Policy Recommendation 8c) cont. (Surface Water Management): A joined-up approach to surface water management across the allocation is advised. This should involve delivery of integrated surface water management infrastructure to serve the whole strategic area, rather than piecemeal delivery for individual development sites within the area.	• Lakeside North Harbour (SFRA L2 para 4.6.22) • Portsmouth City Centre (SFRA L2 para 5.6.20) • Fratton Park & the Pompey Centre (SFRA L2 para 6.6.10) • St James' & Langstone Campus (SFRA L2 para 7.6.26) • Port Solent (SFRA L2 para 9.6.22)	Criterion 5(f) of Policy PLP32 requires a joined-up approach to sustainable drainage to be taken across all sites.
Policy Recommendation 9 (Groundwater flooding): New development should not result in an increased risk of groundwater flooding elsewhere.	This recommendation applies to all strategic sites and site allocations	PCC response Criterion 1(a) of policy PLP31 seeks to reduce the impact of all types of flooding within the City. Criterion 1(f) of Policy PLP31 (<i>The development will not result in the increase of flood risk</i>)

Recommendation within SFRA Level 2	Strategic site/site allocation the recommendation applies to	PCC response/action
		<i>elsewhere and where possible will reduce the overall level of flood risk</i>) also covers all types of flood risk including groundwater flooding. The supporting text to the Policy (in particular criterion 5 which focusses on basement development) provides further detail on the supporting assessments that may be required including a Hydrogeological Risk Assessment. Habitable rooms underground are not permitted within Portsmouth

6 Sequential and Exception Test

6.1 Background

- 6.1.1 PCC originally published a Sequential and Exception Test document in 2024 to support the Portsmouth Pre-submission Local Plan 2024. This document was informed by both the SFRA Levels 1 and 2 and assessed the sites proposed for allocation in the Portsmouth Pre-Submission Local Plan 2024 against flood risk. A new Sequential and Exception Test document has been prepared in 2025 to support the Pre-Submission Local Plan Addendum 2025 in addition to the Pre-Submission Local Plan 2024. This document has been informed by the SFRA Levels 1 and 2. The Sequential and Exception Test 2025 document reflects the new flood maps for planning published by the Environment Agency in March 2025 and has also been informed by the Housing and Economic Land Availability Assessment 2025 which uses the latest flood mapping.
- 6.1.2 Both Sequential and Exception Test documents assess the extent of each proposed strategic and allocated site that is located within flood zones 2 and 3. Those sites which are entirely within flood zone 1 or are proposed for allocation for a less vulnerable/water compatible use did not progress to the exception test. Despite this, all sites (excluding Horsea Island Strategic Open Space, as no development is proposed at the site) were assessed as part of the SFRA Level 2 due to the risk of flooding posed to Portsmouth. This provided a robust approach to assessing flood risk.
- 6.1.3 All sites assessed as part of the exception test were considered to pass both parts of the exception test as far as possible for the plan-making stage and are therefore, considered appropriate to propose for allocation within the Portsmouth Pre-Submission Local Plan 2024 and Portsmouth Pre-Submission Local Plan Addendum 2025 combined. It is vital that the Local Plan includes all these sites, even though this means proposing the allocation of sites located within flood zones 2 and 3.
- 6.1.4 There are no alternative sites within Portsmouth that could deliver the proposed quantum of development of the strategic sites and site allocations that have not already been included within the housing supply.
- 6.1.5 Portsmouth is in an unusual position whereby all deliverable and developable sites have been considered and included as part of the housing supply. Even with all these sites included, Portsmouth still does not meet its housing need in full as measured against the standard method. This signifies the importance and need to allocate sites within areas at risk of flooding.

7 Policies PLP31: Flooding and PLP32: Sustainable Drainage Systems

- 7.1.1 Policies PLP31 and PLP32 have been drafted in line with national planning policy and guidance, informed by the recommendations from the SFRA Level 1 as set out in section 3 of this topic paper, and recommendations from the SFRA Level 2 as set out in section 5, and the findings of the sequential and exception tests as set out in section 6.
- 7.1.2 The City Council has worked collaboratively with the Environment Agency throughout the Local Plan process. This collaborative working was evidenced with a Statement of Common Ground signed after the consultation on the Portsmouth Pre-Submission Local Plan 2024 and there will be new Statement of Common Ground to evidence it further in 2026.