

Gosport Borough Local Plan 2011-2029

Publication Version

Strategic Flood Risk Assessment (Level 1)

June 2014



GOSPORT
Borough Council

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CONTENTS

1.0	BACKGROUND	1
	Introduction	1
	Context	1
	National Policy	3
	Applying the Sequential and Exception Tests	6
	Other Policy Considerations	7
2.0	OVERVIEW OF THE STRATEGIC FLOOD RISK ASSESSMENT	9
	Method Applied in this Assessment	9
	Approach taken to incorporating a SFRA level 2 assessment	11
	Use of Map Sets	17
3.0	REGENERATION AREAS FOR PROPOSED DEVELOPMENT	20
	Applying the Sequential Test	20
	Meeting the Exception Test	22
4.0	STRATEGIC FLOOD RISK ASSESSMENT FOR DRAFT ALLOCATIONS	25
	SFRA findings for proposed Regeneration Areas	27
	• Daedalus	27
	• Gosport Waterfront & Town Centre	32
	• Haslar Peninsula	39
	• Rowner	46
	• The Alver Valley Country Park	50
	Allocations outside the Regeneration Areas	52
	• Priddy's Hard Heritage Area	52
5.0	INFRASTRUCTURE	58

1.0 BACKGROUND

INTRODUCTION

- 1.1 The Partnership for Urban South Hampshire (PUSH) published a Strategic Flood Risk Assessment (SFRA) for the South Hampshire sub region in 2007. The Council has used the SFRA to assist in carrying out the sequential test for those areas identified in the draft Gosport Borough Local Plan 2011-2029. Following on from consultation in December 2012, the Borough Council has prepared a Publication Version of the Local Plan. The findings of the SFRA have been used to inform the Sustainability Appraisal (SA) as appropriate. The PUSH SFRA report is available on the Council's website along with the mapping output layers.
- 1.2 The Borough Council has used the PUSH SFRA to prepare this report which is structured in five parts setting out the following matters:
- a) A broad background of the Borough within the context of the Borough's planning profile and identifies key national planning policy objectives in respect of development and flood risk;
 - b) An overview of the SFRA approach taken by the Council;
 - c) Identification of the Regeneration Areas for development and works through the sequential test undertaken in respect of Flood Zones. This section also includes other residential allocations (excluding those already with a current outstanding planning permission);
 - d) An assessment of the potential flood risk issues for each of the proposed areas using the SFRA final report and mapping layers. This section identifies key flooding issues that will need to be addressed in more detailed through site specific Flood Risk Assessments (FRAs); and
 - e) A broad overview of infrastructure needs (further details of these are contained in the Borough Council's Infrastructure Assessment and Delivery Report June 2014).
- 1.3 Accompanying the Borough Council's study is a series of maps showing the findings of the SFRA for the regeneration areas: Gosport Waterfront and Town Centre, Haslar Peninsula. In addition to these assessments, a SFRA was also carried out for Priddy's Hard Heritage Area as this site is also located in Flood Zones 2 and 3. The maps are available as separate set of appendices numbered 1-3 one set of maps for each area assessed and should be used together with this report. They are available to view at www.gosport.gov.uk/localplan2029.

CONTEXT

- 1.4 Gosport is one of the older urban areas in South Hampshire and has a distinctive geography being located on a peninsula of 2,750 hectares surrounded on three sides by The Solent and Portsmouth Harbour attributing to some 39 kilometres of coastline. The population of the Borough is 82,600 (2011 Census) it is also one of the most densely populated areas in the South East Region with an urban density of 32.6 people per hectare.
- 1.5 There have been significant changes to the urban pattern of development within the Borough in recent years resulting in substantial levels of out-commuting to the A27 – M27 transport corridors primarily through the use of the private car. Addressing the issues of out-commuting and the corresponding congestion along the Borough's strategic road network are important issues for local residents and businesses. These local concerns are reflected in the preparation of the Borough

Council's Corporate Plan which identifies reducing congestion and improving access to the Peninsula as strategic priorities for this Council.

- 1.6 Sustainable development is the key principle underpinning the vision of the draft Local Plan. The vision for the Council's Publication Version of the Local Plan is based on the Sustainable Community Strategy and earlier work carried out on the Borough Council's draft Core Strategy and Consultation draft Local Plan.
- 1.7 One of the key aims of the Local Plan is to set out the broad locations and site specific allocations for development. It is clear that genuine options relating to the location of development are limited due to the size and urban character of the Borough together with a number of significant environmental constraints.
- 1.8 As a coastal authority, managing development, flood risk and coastal erosion are important issues to address. Development proposals must accord with the requirements of the National Planning Policy Statement (NPPF) published in March 2012. The key policy message of the NPPF is to guide development to those areas at lowest risk from flooding where other sites may be appropriate and reasonably available exist. Where it is not possible to do this, it needs to be demonstrated why that is not the case and steps need to be taken to manage those risks that have been identified and mitigate accordingly.
- 1.9 The basic starting point for any assessment of development and flood risk starts with the Environment Agency's Flood Zone maps which are regularly updated and this information shows the extent of potential flooding events. There are significant areas of land that fall within the Environment Agency's defined Flood Zone maps. Appraising flood risk at all stages of the planning process and in all its forms is a key part of development planning and the Environment Agency Flood Zone maps form a key part of this process.
- 1.10 Draft policy LP3: Spatial Strategy makes provision for 3,060 net additional dwellings over the plan period 2011-2029. A number of Regeneration Areas and other smaller allocations have been identified as being capable of delivering the Borough Council's strategy. Each regeneration area has been assessed to identify potential flood risk issues using the sequential test approach (and where appropriate the Exception Test) in accordance with the NPPF. The findings of the SFRA are set out in this report and have been used to inform the sequential test and to highlight potential flood risk issues that may require further investigation through detailed site-specific Flood Risk Assessments.
- 1.11 This document concentrates on the findings of the SFRA in relation to the key allocations proposed in the Publication Version of the draft Local Plan. More detailed consideration of the latest information regarding the effects of coastal change along the Borough's coastline and its future management can be found in the North Solent Shoreline Management Plan (SMP). To build on the policies of the SMP the Eastern Solent Coastal Partnership are preparing the River Hamble to Portchester Coastal Flood and Erosion Risk Management Strategy which is due for completion in summer 2015.

NATIONAL POLICY

National Planning Policy Framework

- 1.12 The National Planning Policy Framework (NPPF) sets out national policy for managing flood risk at all stages of the planning process and considering all forms of flooding. National Planning Practice Guidance (NPPG) accompanies the NPPF and provides detailed guidance on development and flood risk matters. The following tables from the NPPG sets out detailed information relating to the compatibility of development for particular Flood Zones. The tables also include relevant policy information from the NPPF in relation to the requirements for site specific flood risk assessments and appropriateness of particular uses in each Flood Zone.

Definition of Flood Zones

- 1.13 Flood Zones are defined in the NPPG as follows:

Table 1: Flood Zones

Flood Zone	Definition
Flood Zone 1 (Low probability)	<p>Land falling into FZ1 has a less than 1 in 1000 annual probability of river or sea flooding (>0.1%) All land uses are considered appropriate in this zone.</p> <p>Flood Risk Assessments are required on sites one hectare or above.</p>
Flood Zone 2 (Medium probability)	<p>This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1%-0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5%-0.1%) in any year).</p> <p>The water-compatible, less vulnerable and more vulnerable uses of land and essential infrastructure are appropriate in this zone. The highly vulnerable uses identified in Table 2 are only appropriate in this zone if the Exception Test is passed. All development proposals in this zone should be accompanied by a FRA.</p>
Flood Zone 3a (High probability)	<p>This zone comprises 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.</p> <p>The water-compatible and less vulnerable uses in Table 2 are appropriate in this zone. The highly vulnerable uses should not be permitted in this zone.</p> <p>The more vulnerable and essential</p>

	<p>infrastructure uses should only be permitted in this zone if the Exception Test is passed. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in time of flood.</p> <p>All development proposals in this zone should be accompanied by a FRA.</p>
<p>Flood Zone 3b (Functional floodplain)</p>	<p>This zone comprises land where water has to flow or be stored in times of flood. LPAs should identify in their SFRAs areas of functional floodplain and its boundaries accordingly, in agreement with the EA. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. However land that would flood with an annual probability of 1 in 20 (5%) or greater in any year, or is designed to flood in an extreme (0.1%) flood, should provide a starting point for consideration and discussions to identify the functional floodplain.</p> <p>Only the water-compatible uses and the essential infrastructure listed in Table 2 that has to be there should be permitted in this zone. It should be designed and constructed to:</p> <ul style="list-style-type: none"> • Remain operational and safe for users in times of flood; • Result in no net loss of floodplain storage; • Not impede water flows; and • Not increase flood risk elsewhere. <p>Essential infrastructure in this zone should pass the Exception Test.</p> <p>All development proposals in this zone should be accompanied by a FRA,</p>

Source: Table 1: National Planning Practice Guidance Flood Zones

Table 2: Shows the flood risk vulnerability classification

<p>Essential infrastructure</p> <ul style="list-style-type: none"> • Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk. • Essential utility infrastructure which has to be located in a flood risk area for operational, including electricity generating power stations and grid and primary substations; and water treatment works that need to remain operational in times of flood. • Wind turbines.
<p>Highly vulnerable</p> <ul style="list-style-type: none"> • Police stations, ambulance stations and fire stations and command centres and telecommunications installations required to be operational during flooding. • Emergency dispersal points. • Basement dwellings. • Caravans, mobile homes and park homes intended for payment residential use • Installations requiring hazardous substances consent. (Where there is a demonstrable need to locate such installations for bulk storage of materials with port or other similar facilities, or such installations with energy infrastructure or carbon capture and storage installations, that require coastal or water-side locations, or need to be located in other high flood risk areas, in these instances the facilities should be classified as “essential infrastructure”).
<p>More vulnerable</p> <ul style="list-style-type: none"> • Hospitals. • Residential institutions such as residential care homes, children’s homes, social services homes, prisons and hostels. • Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels. • Non–residential uses for health services, nurseries and educational establishments. • Landfill and sites used for waste management facilities for hazardous waste. • Sites used for holiday or short-let caravans and camping, <i>subject to a specific warning and evacuation plan.</i>
<p>Less vulnerable</p> <ul style="list-style-type: none"> • Police, ambulance and fire stations which are not required to be operational during flooding. • Buildings used for shops, financial, professional and other services, restaurants and cafes, hot food takeaways, offices, general industry, storage and distribution, non–residential institutions not included in “more vulnerable”, and assembly and leisure. • Land and buildings used for agriculture and forestry. • Waste treatment (except landfill and hazardous waste facilities). • Minerals working and processing (except for sand and gravel working). • Water treatment works which do not need to remain operational during times of flood. • Sewage treatment works (if adequate measures to control pollution and manage sewage during flooding events are in place).
<p>Water-compatible development</p> <ul style="list-style-type: none"> • Flood control infrastructure. • Water transmission infrastructure and pumping stations. • Sewage transmission infrastructure and pumping stations. • Sand and gravel working.

- Docks, marinas and wharves.
- Navigation facilities.
- Ministry of Defence defence installations.
- Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location.
- Water-based recreation (excluding sleeping accommodation).
- Lifeguard and coastguard stations.
- Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms.
 - Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.

Source: National Planning Practice Guidance Table 2: Flood risk vulnerability classification

1.14 The effects of changing climate conditions on the UK’s weather patterns means there will be more frequent periods of intense rainfall and this can cause flooding which will have an impact on surface water management. In addition to this, sea levels will continue to rise. Changes to those factors associated with coastal erosion such as storm surges, wave action and coastal transport sediment are likely to affect the probability of flooding to new developments.

1.15 The Table below shows the Flood Risk Vulnerability and Flood Zone compatibility classifications as set out in national policy. The Table is provided to illustrate what broad classifications are compatible in the different Flood Zones.

Table 3: Flood risk vulnerability and flood zone compatibility

Flood Risk Vulnerability Classification	Essential Infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception test required	✓	✓
Zone 3a	Exception test required	✓	x	Exception Test required	✓
Zone 3b (functional floodplain)	Exception test required	✓	x	x	x

Source: Table 3: National Planning Practice Guidance Flood Zones

APPLYING THE SEQUENTIAL AND EXCEPTION TESTS

1.16 The NPPF sets out the requirement for proposed allocations to undergo a sequential, risk-based approach to site location. The Sequential Test must be applied in the first instance to the site selection process and the Exception Test is not an alternative to sequential testing. The principle aim is to steer development to those areas at the lowest probability of flooding. If there are no reasonably available sites in Flood Zone 1 then, taking into account the vulnerability of uses,

sites in Flood Zone 2 may be considered – applying the Exception Test where this is necessary.

Coastal Change

- 1.17 Local councils should identify areas likely to be affected by physical changes to the coast and refer to this area of change as a Coastal Change Management Area (CCMA). The starting point for determining whether such an area is required is the adopted North Solent Shoreline Management Plan (SMP). The SMP's adopted policy for the Borough's coastline is one of 'Hold the Line'. In the NPPG, a CCMA will only be defined where rates of shoreline change are deemed to be significant over the next 100 years. In addition, CCMA's will not have to be defined where the SMP policy is to hold or advance the line for the whole period covered by the SMP. Therefore at this present time, it is not considered necessary for the Borough Council to identify a CCMA for the plan period 2011-2029.
- 1.18 Shoreline Management Plans (SMPs) will play a key role in providing a significant part of the evidence base as it indicates areas susceptible to coastal flood and erosion risks. For Gosport the key evidence base for considering flood risk and coastal change issues comes from the adopted North Solent Shoreline Management Plan (2010) and the emerging Coastal Flood & Erosion Risk Management Strategy and the PUSH SFRA supplemented by the latest Environment Agency maps.
- 1.19 The Borough Council regards partnership working with neighbouring local authorities and relevant agencies with an interest in the coast an important element for formulating policy and establishing good practices on a range of coastal and flood risk management issues. The Borough Council participates in a number of partnership arrangements: through PUSH, the Eastern Solent Coastal Partnership, membership of the Solent Forum and through representation on the steering group of the North Solent Shoreline Management Plan, the Hampshire Local Flood Risk Management Strategy Steering Group and other working groups as appropriate. This has helped the Borough Council fulfil both its duty to cooperate requirements under the ***Town and Country Planning (Local Planning) (England) Regulations 2012*** and to engage with current best practice.

OTHER POLICY CONSIDERATIONS

- 1.20 The North Solent Shoreline Management Plan was adopted in December 2010. The proposed policy management option for the Gosport coastline is to 'hold the line'. The recommendation is the existing defence line should be maintained. The North Solent SMP identifies three time periods: Epoch 1: 0-20 years, Epoch 2: 20-50 years and Epoch 3: 50-100 years. It is important to recognise that even where a 'hold the line' policy approach is advocated, this does not guarantee public funding through the Coastal Flood and Erosion Risk Management (CFERM) budget for maintenance or capital works. Therefore other funding mechanisms for ensuring delivery of necessary coastal asset management measures will need to be explored.
- 1.21 Under the Flood and Water Management Act 2010, Hampshire County Council is a Lead Local Flood Authority. Amongst its duties is the preparation of a Preliminary Flood Risk Assessment for Hampshire. This document compiles information on significant local flood risk based on historical trends and potential

for future floods. This in turn informs the preparation of area specific Surface Water Management Plans (SWMPs) and develops the Local Flood Risk Management Strategy. A Local Flood Risk Management Strategy (2013) has been prepared and identifies both the flood risks in Hampshire and the measures and actions needed to address these risks. The County Council in consultation with the Hampshire districts are preparing SWMPs which will provide additional key areas of information assisting in improved understanding and management of surface water across Hampshire. Gosport is not in the first tranche of plan making, however it is expected full county-wide coverage will be complete by 2015. Further information about the role of the County Council and the different strategies and plans can be found at: <http://www3.hants.gov.uk/flooding/floodriskstrategy.htm>

- 1.22 Although the Borough does not have a SWMP in place, Council officers have met with officers from the County Council to discuss surface water management issues in the Borough. Key datasets relating to the preparation of the SWMPs uses includes using the latest Environment Agency data have also been used by the Borough Council in its assessment to supplement the information in the PUSH SFRA.
- 1.23 Work undertaken by Hampshire County Council so far indicates surface water flooding is a potential Borough wide issue and appropriate management and mitigation should be investigated and addressed in site specific FRAs.
- 1.24 The Publication Version of the draft Local Plan is supported by a Sustainability Appraisal Report (SA). The SA incorporates the findings of the Habitats Regulations Assessment (HRA) required under the European Habitats Directives. The HRA made recommendations on the draft policy on Flood Risk and Coastal Erosion in the Local Plan. These relate to where provision of flood defence improvements may increase the loss of internationally important intertidal habitat to coastal squeeze. This issue has been taken on board in the Publication Version of the Local Plan through policies LP42-LP45.

2.0 OVERVIEW OF THE STRATEGIC FLOOD RISK ASSESSMENT

- 2.1 The Borough Council is a member of the Partnership for Urban South Hampshire (PUSH)¹ The PUSH has worked, together, with a number of partners on a range of important projects for the South Hampshire sub region including working in partnership with the Environment Agency and the Water Authorities on a Strategic Flood Risk Assessment.
- 2.2 PUSH commissioned Atkins to undertake a Strategic Flood Risk Assessment (SFRA) for the South Hampshire sub-region. The sub region covers almost 600 km² and includes 270 km of tidal coastline. It includes the urban areas of Eastleigh, Fareham, Gosport, Havant, Portsmouth and Southampton. The sub region is also subject to a number of other flooding issues besides coastal, these include fluvial and groundwater making the assessment of flood risk a key issue across the sub region. The SFRA final report and map layers are available as part of the draft Local Plan evidence base on the Borough Council's website at: www.gosport.gov.uk/localplan2029
- 2.3 The PUSH SFRA includes a main report as well as individual district council reports. For Gosport, the SFRA shows the main source of flood risk to the Borough comes from tidal flooding. The main areas of the Borough at risk from tidal flooding are:
- The entire frontage of Haslar Creek;
 - Stokes Bay;
 - The Alver Valley; and
 - The southern half of Portsmouth Harbour – particularly Priddy's Hard.
- 2.4 A secondary source of flood risk is from the River Alver. The River Alver discharges into the sea via a tidal outflow which is flapped to prevent tidal inundation of the river valley. The SFRA shows that if this defence were to fail then the Alver Valley would experience regular inundation from the sea. Therefore the SFRA shows the Alver Valley as predominantly at risk from tidal flooding. However the river comes from a very small catchment and flows largely through an unconstrained and undeveloped floodplain hence the risk of fluvial flooding to properties is very small.
- 2.5 There have been some historical incidences of flooding occurring from other sources of flooding within the Borough namely flooding through surface water run-off due to the Borough's urban nature and flooding caused by infrastructure failure (drains).

METHOD APPLIED IN THIS ASSESSMENT

- 2.6 The assessment method for the Regeneration Areas uses the sequential test as set out in the published SFRA and this approach is set out in more detail on pages 26 of this report. As part of the Borough Council's work, the SFRA's detailed flood maps were used to assess where further work from a site specific FRA may be required, this is set out for each area in part four of this report. In

¹ At the time of preparation of the Sub Regional Strategy for South Hampshire PUSH included East Hampshire District Council, Eastleigh Borough Council, Fareham Borough Council, Gosport Borough Council, Hampshire County Council, Havant Borough Council, New Forest District Council, Portsmouth City Council, Southampton City Council, Test Valley District Council and Winchester City Council. Since this time New Forest District Council is no longer part of PUSH.

In addition to this, the SFRA has been applied to other allocations proposed for residential/mixed use development where the site is located outside of Flood Zone 1 (Draft Policy LP9A) this specifically relates to the Priddy's Hard Heritage Area. Where sites are allocated but already have an outstanding planning permission this assessment has not been carried out as consideration of flood risk would have been addressed at the time of granting planning permission.

- 2.7 The SFRA uses a series of flood models to map flood risks and the outcomes of these are set out in a series of output packages. These output packages can be used to inform different types of spatial planning, coastal engineering and emergency planning functions. Details of these Map Sets are set out briefly below. Further information about the methodology and output package details used to prepare the SFRA can be found in the final SFRA report on the Council's website www.gosport.gov.uk/localplan2029.
- 2.8 The combination of Gosport's coastal geography and the location and extent of former Ministry of Defence and other major public sector land holdings, now considered surplus to the requirements of these organisations, means the Borough Council has a significant opportunity to deliver major regeneration benefits both to the local community as well as assisting the delivery of economic regeneration in south Hampshire.
- 2.9 A key issue is to consider how to manage the need for regeneration, understanding what the potential risks from flooding are and how to manage these through the preparation of site-specific Flood Risk Assessments. The Borough Council considered it necessary to develop a practical and collaborative approach with key experts in this field. Therefore throughout the preparation of its planning strategy, the Borough Council has actively engaged in early and informal discussions with the Environment Agency and others including the Eastern Solent Coastal Partnership and the water companies. The results of these discussions along with the views expressed in previous rounds of consultation on the draft Core Strategy have culminated in the Borough Council's proposed allocations and draft policies LP2: Infrastructure (including the Community Infrastructure Levy) and LP45: Flood risk and coastal erosion in the draft Local Plan. The draft policies and proposed allocations have been through the Sustainability Appraisal process which have been informed by the findings of the Borough Council's SFRA work.
- 2.10 In addition to the above, the Borough Council, the Environment Agency and the Eastern Solent Coastal Partnership have worked together to prepare further detailed information on strategic flood risk assessment to support the delivery of new development. This new piece of work takes on board the comments received from the Environment Agency on the draft Gosport Borough Local Plan 2011-2029 and Strategic Flood Risk Assessment which were published for consultation in December 2012. The Borough Council has prepared this report with the support of officers from the Environment Agency and the Eastern Solent Coastal Partnership. This report has the objective of providing confidence that the Borough Council's proposed regeneration area allocations at Gosport Waterfront (LP4), Haslar Peninsula (LP6) and the Priddy's Hard Heritage Area (LP9A) can be delivered within the context of flood risk. This work will be published as part of the evidence base for the Publication Version of the Local Plan and should be read alongside this Strategic Flood Risk Assessment report.
- 2.11 As an interim measure prior to the adoption of the Gosport Borough Local Plan 2011-2029, further partnership working between the Environment Agency and

other local authorities (including Gosport) in the Solent 2026 Project, has resulted in the preparation of: Guidance for New Development in Flood Risk Areas (More Vulnerable Development). This document sets out detailed guidance for developers about what needs to be included in site specific Flood Risk Assessments and provides both local councils and developers with specific guidance on the issues that need to be considered when developing in flood risk areas. Although this document was prepared at the time PPS25 was in force, the Borough Council considers that the principles remain valid in the context of the NPPF and has been incorporated in to the work on the Strategic Flood Risk Assessment Technical Report. This document can be viewed on the Borough Council's planning page at: <http://www.gosport.gov.uk/sections/your-council/council-services/planning-section/pre-application-advice/> and should be used to assist in meeting the policy requirements of the NPPF.

- 2.12 In addition to this information, the Environment Agency publishes its Flood Risk Standing Advice for England on its website. This provides guidance to both Local Planning Authorities and applicants on submitting and determining planning applications. The Flood Risk Standing Advice for England can be found at: <http://www.environment-agency.gov.uk/research/planning/82584.aspx>
- 2.13 The Borough Council, in partnership with the Environment Agency and the Eastern Solent Coastal Partnership, prepared additional work to supplement the original SFRA work and should be read alongside this document. This additional report sets out further consideration of flood risk issues relating to key sites at: Gosport Waterfront, Haslar Peninsula and Priddy's Hard Heritage Area. It includes consideration of a number of options for managing flood risk in these locations and sets out the Borough Council's preferred approach for management and this has formed the basis for the more detailed aspects required for a SFRA level 2 assessment.

APPROACH TAKEN TO INCORPORATING A SFRA LEVEL 2 ASSESSMENT

- 2.14 The preparation of the PUSH SFRA took two stages: first, it provided a high level regional appraisal of flood risk across the sub region that was used to inform the Regional Spatial Strategy Examination-in-Public. Second, the SFRA was prepared to provide individual local authorities with a district-wide level assessment that could then be used by individual councils to undertake work on specific locations and sites that they may wish to allocate in development plans. The PUSH SFRA encompasses information relevant to provide a level 1 and a more detailed level 2 assessment.
- 2.15 For reasons explained in section 3 of the Borough Council's report, it has not been possible to achieve the same level of regeneration benefits from allocating the total housing requirement within sites from Flood Zone 1. Working closely with the Environment Agency and the Eastern Solent Coastal Partnership, the Borough Council have prepared a Technical Report which accompanies this SFRA. That report contains more detailed information relating to flood risk and a number of options for flood risk management measures. The work is based on the requirements for a SFRA level 2 assessment and the approach for this assessment has been prepared with the Environment Agency.
- 2.16 The Borough Council's assessment has encompassed all the mapping information from the PUSH SFRA. This has been supplemented with information from the latest Environment Agency maps on groundwater and surface water flooding. This means a more comprehensive assessment of potential issues has

been considered and has been applied to all the Regeneration Areas and the smaller allocation of Priddy's Hard Heritage Area (included because of its Portsmouth Harbour location and role in delivering objectives in the draft Local Plan).

2.17 For ease of reference the requirements for an SFRA Level 2 assessment are set out below. This information comes from guidance on SFRAs prepared by the Environment Agency in July 2013 to support the National Planning Policy Framework.

2.18 Outputs for a Level 2 SFRA

- a) An appraisal of the current condition of flood defence infrastructure and of likely future flood management policy with regard to its maintenance and upgrade;
- b) an appraisal of the probability and consequences of overtopping or failure of flood risk management infrastructure, including an appropriate allowance for climate change;
- c) definition and mapping of the functional floodplain in locations where this is required;²
- d) maps showing the distribution of flood risk across all flood zones from all sources of flooding taking climate change into account;
- e) Advice on appropriate policies for sites which could satisfy the first part of the Exception Test (sustainability benefits to the community that outweigh flood risk), and on the requirements that would be necessary for a site-specific flood risk assessment supporting a planning application for a particular application to pass the second part of the Exception Test.
- f) advice on the preparation of flood risk assessments for sites of varying risk across the flood zones, including information about the use of sustainable drainage techniques; and
- g) meaningful recommendations to inform policy, development control and technical issues.

2.19 The following paragraphs explain how the Borough Council's assessment incorporates the SFRA level 2 requirements which are in **bold type**. Where there are limitations in the data this is also explained.

2.20 **An appraisal of the current condition of flood defence infrastructure and of likely future flood management policy with regard to its maintenance and upgrade**

The PUSH SFRA does not contain specific information regarding the condition of sea defences. It does provide information comparing the crest level/natural ground to the range of extreme sea level return periods for both the present day and 2115 using Environment Agency (EA) data. It does not take account of the following defence related factors:

- Defence type;
- Defence age, condition and residual life;
- The freeboard allowance built into the design of the defences; and
- The potential for wave overtopping of the defences.

² The modelling information to define the fluvial functional floodplain (Food Zone 3b) was not available for this area. Therefore the SFRA assumed that the functional floodplain was the same as Flood Zone 3a. *Source: page vii PUSH SFRA Final Report, Atkins (December 2007)*

- 2.21 The North Solent Shoreline Management Plan (SMP) adopted a *Hold the Line* policy for the Borough's entire coastline. Appendix C of the SMP provides basic information about the condition and lifespan of coastal defences. The preparation of coastal management strategies are linked to the implementation of the SMP policies. The details of the SMP and the policies related to Gosport can be found at:
<http://www.northsolentsmp.co.uk/index.cfm?articleid=9907&articleaction=nthsInt&CFID=13157455&CFTOKEN=35932994>
- 2.22 The Eastern Solent Coastal Partnership is preparing the River Hamble to Portchester Coastal Flood and Erosion Risk Management Strategy. This Strategy will develop the SMP policy for the Gosport area and will provide long-term sustainable management of the coastline. The Strategy will contain detailed information on asset condition, the current and future standards of protection and an implementation plan (when the asset will require intervention). Annual asset inspections of coastal flood and erosion risk infrastructure are carried out regularly by the Eastern Solent Coastal Partnership. Fluvial flood risk assets are inspected by the Environment Agency. Asset data can be obtained from the corresponding responsible authority. Further information can be obtained from the Eastern Solent Coastal Partnership at this address: <http://www.havant.gov.uk/havant-12425>
- 2.23 **An appraisal of the probability and consequences of overtopping or failure of flood risk management infrastructure, including an appropriate allowance for climate change**
Output package 3 of the PUSH SFRA 'Appropriate Defence Standards and Levels of Investment, identifies shortfalls in existing defences in terms of providing appropriate standards of defence (both present day and taking into account climate change information). Map Set 1F-1: Wave overtopping shows how exposure to wave energy varies along the frontage of the study area. This information can be used to assess (at a high level) the risk of flooding caused by extreme wave overtopping. In the case of Gosport, the PUSH SFRA considered that Gosport's harbour frontages experienced low wave energies whereas the Borough's open coast frontage was more likely to experience moderate wave energies. The SFRA findings for Gosport recommend that all applications for development within the vicinity of the open coast frontage includes an assessment of extreme wave overtopping regardless of which Flood Zone the site is in even if it is not identified as a significant risk.
- 2.24 A high level assessment of the current and future climate change impacts on the Borough were factored into the adopted North Solent Shoreline Management Plan using the PUSH SFRA mapping layers. Information builds on climate change data used to inform the first generation of Shoreline Management Plans and is a key factor in determining the preferred coastal management policy. The coastal strategy will be able to inform understanding of this issue further and have been consulted on the findings of this report.
- 2.25 **Definition and mapping of the functional floodplain in locations where this is required**
This refers to the Flood Zone 3b which is land where water has to flow or be stored in times of flood. The PUSH SFRA (section B2, paragraph B.2.1) states that this definition of Flood Zone 3b is not relevant to coastal floodplains as the reduction in flood storage in these areas is not relevant to coastal floodplains as

reduction in flood storage in these areas would not cause water to be displaced elsewhere.³

- 2.26 The River Alver occupies a large open floodplain which is for the majority undeveloped and will remain so as it has been designated a Country Park see draft policy LP8 of the draft Local Plan which promotes this area as a Country Park, any associated development will have to satisfy the policy requirements of draft policy LP45: Flood Risk and Coastal Erosion.
- 2.27 The PUSH SFRA concluded that aside from the River Alver, fluvial flooding was not a key issue to be considered in site specific Flood Risk Assessments in Gosport.
- 2.28 **Maps showing the distribution of flood risk across all flood zones from all sources of flooding taking climate change into account**
This information for Gosport can be obtained by using the PUSH SFRA. PPS25 recognises the importance of considering the effects of climate change in making decisions about the location of new development. In the PUSH SFRA, Map set 1E shows the climate change mapping layers for the effects of climate change on Flood Zone outlines for 2025, 2055, 2085 and 2115. These outlines have been prepared in line with Defra guidance on climate change which provides allowances for sea level rise and increased river flows as a result of expectant climate change science. In the methodology, the assumptions made about these climate change outlines were put together by projecting the EA's extreme sea level data inland using EA approach. Details of this approach are contained within Appendix B of the PUSH SFRA.
- 2.29 This approach means that the effects of climate change can be factored in throughout the lifetime of a development based on the best information at the time. This information has been factored into the assessment relating to climate change in this report. The Borough Council took the view that when looking at the implications of climate change on a specific allocation, the assessment would focus on the 2115 climate change layers in order to identify any long term issues.
- 2.30 In addition to this information, Hampshire County Council published Surface Water Management Plan Strategic Assessment and Background Information to support the preparation of its SWMPs. This document contains the UK Climate Projections (UKCP09), published by Defra in June 2009 and shows a number of climate change scenarios for the 2020s, 2050s and 2080s.
- 2.31 The Borough Council would expect to see any Flood Risk Assessments on planning proposals coming forward under draft policies LP4-LP9A to address the issue of climate change utilising the most upto date datasets available to do this.
- 2.32 **Guidance on appropriate policies for sites which could satisfy parts a) and b) of the Exception Test, and on the requirements that would be necessary for a flood risk assessment supporting a planning application for a particular application to pass part c) of the Exception Test**
The PUSH SFRA provides guidance to local authorities on the development of a flood risk policy. The flow chart in Appendix C: Local Authority Guidance Notes of the PUSH SFRA Final Report shows how the mapping outputs can be used to inform the Sequential and Exceptions Tests. The Borough Council has applied

³ See footnote 2 above.

the approach set out in the flow diagram to the proposed key allocations in section 4 further on in this report. This work has informed the policy guidance set out for each site contained in draft Local Plan policies LP4- LP9A.

2.33 Guidance on the preparation of flood risk assessments for sites of varying risk across the flood zones, including information about the use of sustainable drainage techniques

The PUSH SFRA also provided tailored reports to partner local authorities. Appendix C makes recommendations for site specific FRAs including recommendations for the use of sustainable drainage systems. In the case of Gosport, the PUSH SFRA notes that new development on the small area of 'greenfield land' is likely to have a moderate or high impact on the surface water runoff regime. Therefore site-specific FRAs are recommended to investigate SuDS options to manage surface water management where this is achievable. The 1F mapsets provide more detailed information (this is explained in more detail on page 12) and this has been used to inform the Borough Council's decision making for its proposed allocations. This information has been incorporated into the assessment identifying where this may require further investigation as part of a site-specific Flood Risk Assessment. Further information relating to site specific Flood Risk Assessments can be found in Guidance for New Development in Flood Risk Areas available from: <http://www.gosport.gov.uk/sections/your-council/council-services/planning-section/pre-application-advice/>. In addition to these sources the Environment Agency prepare Flood Risk Standing Advice for England (FRSA) and this provides detailed guidance for both Local Planning Authorities and developers for preparing Flood Risk Assessments. Further information on FRSA can be found on the Environment Agency's website at: <http://www.environment-agency.gov.uk/research/planning/82584.aspx>

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2.35 Identification of the location of critical drainage areas and identification of the need for Surface Water Management Plans

Southern Water was a key stakeholder in the PUSH SFRA process and map set 1F shows any historic incidences of surface water flooding in the Borough. Further to the information provided by the PUSH SFRA.

- 2.36 The Environment Agency has published the most recent South East Hampshire Catchment Flood Management Plan (SEHCFMP) (December 2009). Gosport falls within sub area 1: Portsmouth and Langstone Harbours this sub area covers: Fareham, Gosport, Havant and Portsmouth. The SEHCFMP identified the main inland flood risk comes from surface water flooding. In terms of surface water management, the SEHCFMP recognised that surface water flooding is likely to worsen as a result of increased rainfall and more intense storms as effects of climate change take effect. The management plan also states that opportunities for drains to discharge to the sea will be limited by future sea level rise. The SEHCFMP has a policy approach for each sub area. For sub area 1, this is known as Policy 5. Policy 5 refers to:

‘Areas of moderate to high flood risk where we can generally take further action to reduce flood risk’

- 2.37 The SEHCFMP further adds:

‘This policy will tend to be applied to those areas where the case for further action to reduce flood risk is most compelling, for example where there are many people at high risk, or where changes in the environment have already increased risk. Taking further action to reduce risk will require additional appraisal to assess whether there are socially and environmentally sustainable, technically viable and economically justified options.’

- 2.38 To provide more detailed information relating to address current and future pressures on the existing drainage network, Hampshire County Council are preparing a county-wide Surface Water Management Plans which will include a plan for the Gosport area. In the meantime, and for the purposes of providing an assessment of the issues for the draft Local Plan, the Borough Council has used the PUSH SFRA and also incorporated the available Environment Agency mapping.

- 2.39 The draft policy expects all new development must ensure there will be no net increase in surface water run-off and where appropriate, new development should incorporate Sustainable Drainage Systems or other water retention or water storage measures to assist in managing surface water drainage where SUDS are proven unviable. In addition to this where SUDS systems are included in a scheme, that arrangements must be put in place for their ownership and whole life maintenance and management. The Environment Agency expressed support for this approach during the consultation on the Gosport Draft Core Strategy – Preferred Options September 2009 consultation and local plan preparation stage.

2.40 Meaningful recommendations to inform policy, development control and technical issues

In addition to identifying specific issues the assessment identifies implications for the draft Local Plan to consider. The findings of the SFRA have been used to inform proposed allocations and development management policy.

USE OF MAP SETS

2.41 Table 4 cross references the allocations with their corresponding map sets. In some allocations, for example Daedalus and Rowner which are in Flood Zone 1 it will not be necessary to reproduce these as appendices as the SFRA did not identify any potential issues of key significance. The chart below is simply provided to assist users of this report see what information was used to assess which allocation.⁴

Table 4: SFRA Map Sets

Current Environment Agency Maps	Waterfront	Haslar	Priddys Hard	Daedalus	Rowner	Alver Valley
Areas Susceptible to Ground Water Flooding						
Flood Zone 2 & 3 – latest information from Env Agency						
Surface Water Flooding – Pluvial						
Flood Map for Surface Water						
Groundwater Vulnerability Zones						
Surface Water Flood Map for 1 in 30 year rainfall						
SFRA Map Sets	Waterfront	Haslar	Priddys Hard	Daedalus	Rowner	Alver Valley
1B - Hazard Map - Flood Zone 2						
1B - Hazard Map - Flood Zone 3						
1C - Indicative areas benefiting from dangers						
1D - Danger from Breaching - Flood Zone 2						
1D - Danger from Breaching - Flood Zone 3						
1E - Climate Change - Year 2115						
1F - Wave Energy						
1F - Groundwater Flooding						
1F - Impact of Land Use Change						
1F - Potential Sources of Overland Flow						
3A - Crest/Tide Level (present day)						
3B - Investment to provide a 200year Crest/Tide Level (present day)						
3C - Crest/Tide Level (2115)						
3D - Investment to provide a 200year Crest/Tide Level (2115)						

2.42 The mapsets are re-produced in a set of appendices that accompany this report for the following allocations:

- Daedalus;
- Gosport Waterfront and Town Centre;
- Haslar Peninsula; and
- Priddy's Hard Heritage Area.

2.43 The SFRA was prepared when PPS25 was in force and therefore there are references as appropriate to PPS25. The NPPF considers SFRA's to be an important component for applying the Sequential Test when allocating sites. This report contains descriptions of the map sets used and these are described below.

Map Set 1B: Undefended Flood Hazard

2.44 The Stage 1 report (Appendix D) of the SFRA sets out in detail the methodology and data sets used for modelling this layer. In short the undefended flood hazard is assessed using a combination of flood depths and velocities. Its purpose is to assist in applying the sequential approach within Flood Zones 2 and 3. It helps to identify those areas within a specific Flood Zone where a flood event may have different consequences for those affected depending upon their specific location. The SFRA recommends that site specific FRAs undertake a quantitative

⁴ Key: Yellow shows where a given map layer had information relevant to a specific allocation. Red indicates nothing of relevance was shown within the defined boundary of each allocation.

assessment of flood hazard based on more detailed assessments of defence standards, defence failure scenarios and overland conveyance of flood flow.

Classification	Description
Low	Caution Flood Zone with shallow flowing or deep standing water
Moderate	Dangerous for some (i.e. children) Danger Flood Zone with deep fast flowing water
High	Dangerous for most people Flood Zone with deep fast flowing water
Very high	Dangerous for all Extreme danger Flood Zone with deep fast flowing water

(Source: PUSH SFRA December 2007)

Map Set 1C: Indicative Areas Benefiting from Defences

2.45 Map set 1C shows those areas benefiting from ‘Indicative Areas Benefiting from Flood Defences’ (iABD). These areas are defined by identifying the Standard of Protection provided by current defences as shown in Map Set 3a (Present day indicative standards of protection) and comparing them to the Flood zones. a minimum of a 200 year standard of protection for new development is required, therefore where existing defences provided a consistent line of defences at a 200 year standard or above the area behind the defences was classified as an iABD. It is important to note that these areas are only identified if the whole flood cell was protected to the minimum standard. Importantly, if Map Set 3A showed a small section of defence fell below the required standard for new development the area behind would not be shown as an iABD. It is important to note that the assessment does not mean that the existing defences provide no benefit but they do not meet the 200 year standard for new development.

Map Set 1D: Danger to People from Breaching

2.46 The approach used for this Map Set is derived from the method described in ‘Flood Risk Assessment Guidance for New Development Phase 2 R&D Technical report’ (FD2320). This Map Set identifies the consequences of breaching it does not assess the probability of occurrence. The purpose of this information is to indicate where a problem could arise and identify where more detailed work is necessary.

2.47 The breach hazard assumes that there has been a continuous breach in the coastal defences and works out the danger to people as a consequence of that breach according to the depth of water at different distances from a defence line. i.e. the closer to the defence, the higher the danger to people for a specific depth of flood water. Danger is defined as follows (source DEFRA document):

- Danger for some: This includes children, the elderly and the infirm;
- Danger for most: This includes the general public; and
- Danger for all: This includes the emergency services.

Map Set 1E: Climate Change Outlines

2.48 Climate change outlines were produced for 2025, 2055, 2085 and 2115. (Technical details are set out in the SFRA Final Report available in the ‘Evidence Base’ section on the Borough Council’s website.

Map Set 1F: Other Sources of Flooding

2.49 A number of important flooding issues are also mapped these are:

- Wave overtopping;
- Groundwater flooding;
- Impact of land-use change on surface water runoff; and
- Potential sources of overland flow.

2.50 As well as assisting LPAs in undertaking sequential assessment for site allocations and planning applications, the SFRA also provides detailed information on flood hazard and vulnerability to flooding to help Flood Risk Managers to identify where future flood defence investments can be focused.

2.51 In addition to the mapsets of the PUSH SFRA, the Environment Agency have produced more recent mapping for groundwater and surface water flooding. However it is important to note that these maps in the context of this assessment have only been used to assist the Borough Council in understanding the potential flood issues at a strategic level for the purposes of preparing the draft Local Plan. They can be used as a starting point for more technical work that may be as part of site specific Flood Risk Assessments but the Environment Agency recommend they should be used in combination with other data sources and not in isolation.

Map Sets 3A and 3C: Present Day Defence Crest Levels

2.52 The SFRA provides indicative information on present day defence crest levels based on the equivalent tidal return period of the existing defence crest levels of the defence/natural ground to the range of extreme sea level return periods for both 2010 and 2115. The assessment was based only on a comparison of the crest/natural ground level with extreme sea levels, it provide information on the standards of service provided by existing defences.

Map Set 3B and 3D: Investment Indices to provide protection to a 1 in 200 year level

2.53 The difference between the actual defence crest level 1 in 200 year extreme sea levels for 2010 (present day) and 2115 was used to calculate the investment index. The unit cost is based on the assumption that the key factor in calculating the investment index is the difference in height between the desired level of defence and the actual level of defence.

3.0 REGENERATION AREAS PROPOSED FOR DEVELOPMENT

- 3.1 The draft Local Plan proposes housing provision to be made for 3060 net additional dwellings in the Borough. The PUSH SFRA has been an important tool in assessing appropriate locations to accommodate these dwellings. In order to deliver this level of growth, a number of key Regeneration Areas have been put forward. The details on scale and development mix are set out in the 'Regenerating Gosport through the delivery of High Quality Sites', chapter 7 of the draft Local Plan. Further information relating to the spatial strategy is set out in the Spatial Strategy Topic and Background Papers and can be viewed at www.gosport.gov.uk/localplan2029
- 3.2 Specific proposals for each area are set out in more detail in draft policies LP4-LP8 and draft policy LP9A in the case of Priddy's Hard Heritage Area.
- 3.3 Smaller sites in accessible locations will be promoted through draft policy LP9 A-D and these will also be subject to the SA process. The Council's Strategic Housing Land Availability Assessment (SHLAA) assessed the potential for residential development and included a consideration of flood risk as part of this assessment.
- 3.4 In accordance with the NPPF, the Council has followed the sequential approach in considering its development allocations within the Borough. This is set out in the table below for the provision of 3060 additional dwellings.

APPLYING THE SEQUENTIAL TEST

- 3.5 The tables below show how the proposed allocations in the draft Local Plan have been sequentially tested in order to deliver the long term planning strategy to meet the housing requirement figure (further details explaining the long term planning strategy for the Borough can be found in the relevant background papers to accompany the Plan. Table 6.2 of the draft Local Plan shows the housing supply position as at the 1st April 2014. In this SFRA report, tables 5a and 5b (below) breaks the information in table 6.2 down to identify the overall quantum of residential development for the Borough, total completions to date and existing planning permissions along with the amount of development left to find. In addition to this, table 5b breaks the supply down further to show where new development proposals sit in relation to specific Flood Zones and apportions, based on the Borough Council's best estimates, the amount of new development anticipated on each site within each Flood Zone.
- 3.6 Clearly site specific details relating to individual scheme layout and design and mix of uses will refine this process further at the planning application stage, however for the purposes of applying the sequential test to site allocations in the draft Local Plan, the Borough Council considers the approach shown in the tables below to be reasonable and sound.

Table 5a: Housing requirement and current planning commitments (*net dwellings as at 1st April 2014*)

Planned requirement (2011-2029)	3060
Completions (1/4/11-31/3/14)	381
Existing permissions (1/4/14)	743
Outstanding requirement to be found	1936

Table 5b: Future housing supply (*net dwellings as at 1st April 2014*)

Supply	Flood Zone 1	Flood Zone 2	Flood Zone 3	Total dwellings
Gosport Waterfront	0	200	500	700
Daedalus	249	0	0	249
Royal Hospital Haslar	300	0	0	300
Smaller Town Centre sites	172	0	0	172
Priddy's Hard Heritage Area	70	20	10	100
Stoners Close	17	0	0	17
Wheeler Close	16	0	0	16
Laphorn Close	14	0	0	14
Small Sites Windfall Allowance (2016/17-2028/29)	429	0	0	429
Total Supply	1267	220	510	1997

- 3.7 From the figure of 1997 dwellings, 63% of the dwelling supply is located in Flood Zone 1, 11% in Flood Zone 2 and 26% in Flood Zone 3. However the majority of this percentage figure in Flood Zone 3 is made up by the Gosport Waterfront Regeneration Area and only a small amount in the Priddy's Hard Heritage Area both sites are considered by the Borough Council to be an integral part of its planning strategy to regenerate the whole of the Gosport waterfront from Priddy's Hard to the Haslar Peninsula and their strategic importance to the successful delivery of the strategy makes both sites suitable candidates to be meet the requirements of applying the Exception Test in the NPPF. The case for the Gosport Waterfront and Priddy's Hard Heritage Area in meeting these requirements are set out below.

MEETING THE EXCEPTION TEST

- 3.8 In the NPPF (paragraph 102) states:
'If, following application of the Sequential Test, it is not possible, consistent with wider sustainability objectives, for the development to be located in zones with a lower probability of flooding. The Exception Test can be applied if appropriate. For the Exception Test to be passed:
- It must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk, informed by a Strategic Flood Risk Assessment where one has been prepared (part one); and
 - A site-specific flood risk assessment, must demonstrate that the development will be safe for its lifetime taking into account the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.' (part two)

Gosport Waterfront and Priddy's Hard Heritage Area

- 3.9 The Borough Council considers the sites are capable of meeting both parts of the Exception test and the reasons for being able to do this are set out in the paragraphs below.

Meeting Part One

- 3.10 The Gosport Waterfront and Priddy's Hard Heritage Area are brownfield sites both capable of providing major regeneration opportunities borough-wide. They both play significant roles in the regeneration of the waterfront along Portsmouth Harbour. In the case of Gosport Waterfront this would also support regeneration opportunities in Gosport Town Centre and in the case of Priddy's Hard Heritage Area help to secure the future of unique historical assets.
- 3.11 The Gosport Waterfront area is identified in both the PUSH South Hampshire Strategy (October 2012) and the PUSH Business Plan as an important contributor to delivering urban regeneration within the sub region and therefore the regeneration area is recognised as having significant sustainability benefits not only for the local Gosport community but also within South Hampshire as a whole.
- 3.12 Earlier public consultation on the Preferred Options stage of the Borough Council's draft Core Strategy indicated public support for the regeneration for the Gosport Waterfront area. Since then, the Borough Council commissioned Colin Buchanan consultants to prepare a masterplan. The first stage of consultation on the broad issues showed substantial support for redevelopment demonstrating that there is acceptance by the local community that change and growth are needed in order to make significant beneficial changes to this area. The consultation also showed there were strong concerns that inaction would continue to depress the current situation on this part of the waterfront.
- 3.13 Both sites have been assessed in detail using the mapping layers of the PUSH SFRA. The findings of this analysis for both sites are set out in more detail in this report under the section titled: SFRA Findings for proposed Regeneration Areas and Allocations outside the Regeneration Areas. In addition to this the Eastern Solent Coastal Partnership are preparing the Hamble to Porchester Flood and Coastal Erosion Risk Management Strategy. The coastal strategy will be integral to coastal management in the Borough during the plan period and beyond. This work has been supplemented by further detailed work in the SFRA Technical Report (June 2014).

- 3.14 The SFRA Technical Report used additional mapping provided by the Environment Agency as part of the technical inputs to the Environment Agency's Stubbington, Fareham and Gosport ABD (Areas Benefitting from Defences) and Hazard Mapping Modelling Report (Environment Agency, March 2011). This modelling work takes account of defences and openings along the coast and includes an allowance for wave overtopping. The additional maps reproduced in the Borough Council's additional flood risk report, take account of flood level, velocity and hazard. The tidal events considered in the Environment Agency's study ranged from 3.0m AOD and 4.3m AOD peak tide levels and were informed by the minimum height of the study areas coastal defences and includes a number of intermediate levels including the 1 in 200 year and 1 in 1000 year return period tides in the present day and the 1 in 200 year return period tide taking into account the effects of climate change estimated for 2115. The model shows the effects of water level conditions and wave height have on wave overtopping based on a 40 hour, 3 tide cycle. This information was also used to inform the ESCP's Coastal Processes Report (December 2012) prepared as part of the work on the River Hamble to Portchester Coastal Flood and Erosion Risk Management Strategy.
- 3.15 Early dialogue with key stakeholders as part of the preparation of the draft Local plan including the Environment Agency through PUSH joint working on the South Hampshire Strategy and working projects such as the Solent 2026 and Hampshire County Council about these sites has been on-going throughout the preparation of the Council's planning strategy. This has assisted the Borough Council in the preparation of its evidence base.

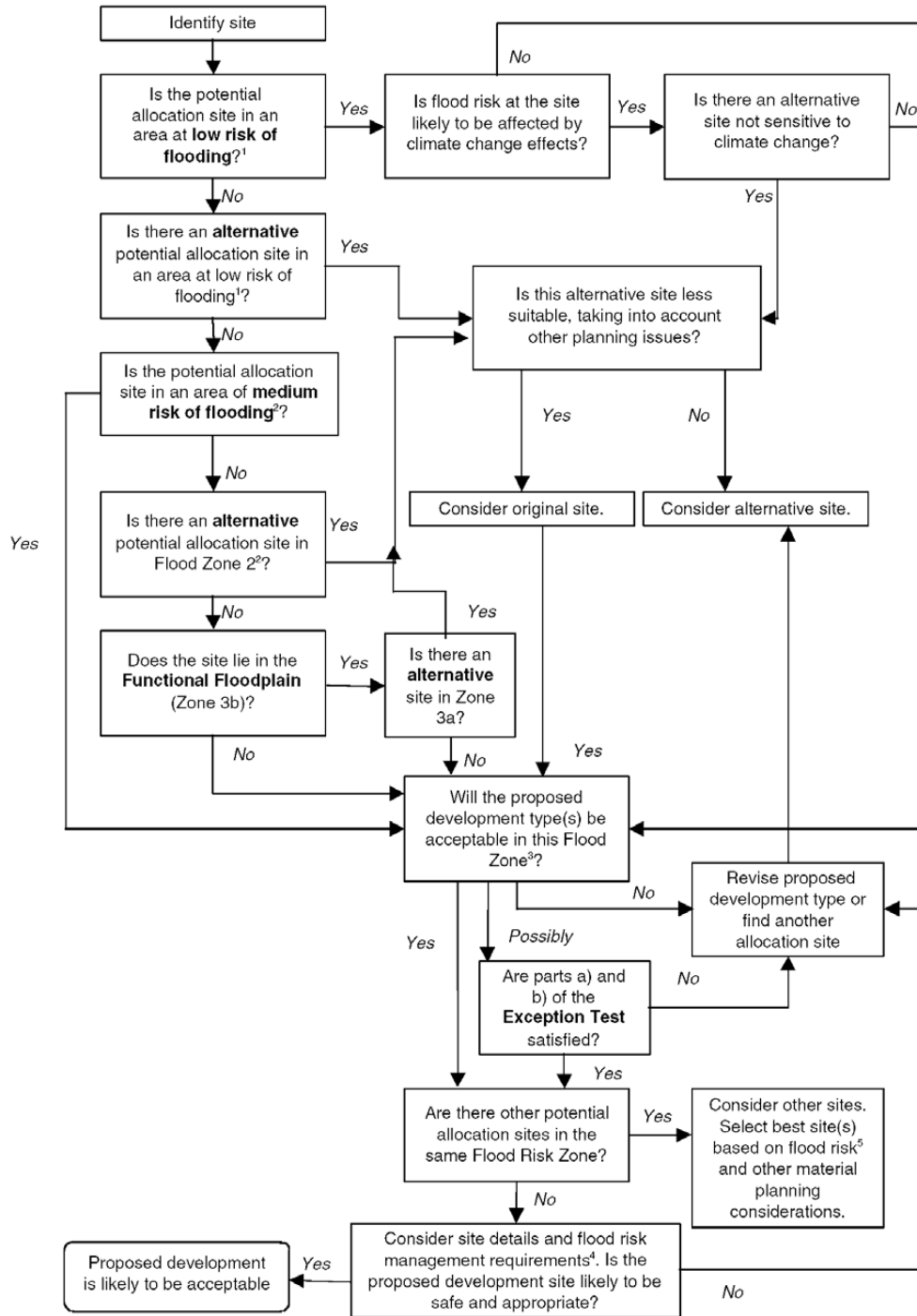
Meeting Part Two

- 3.16 To meet part two of the Exception Test a site-specific Flood Risk Assessment must demonstrate that the development will be safe for its lifetime taking into account the vulnerability of its users, without increasing flood risk elsewhere and where possible will reduce flood risk overall.
- 3.17 As part of the local approach to managing flood risk and development in the Borough; the Borough Council, in partnership with the Environment Agency and the Eastern Solent Coastal Partnership, published 'Guidance for New Development in Flood Risk Areas (More Vulnerable Development)'. This document has been used to guide the formulation of this work and prospective applicants should draw on it when preparing site specific FRAs. The SFRA Technical Report also sets out in paragraph 2.3 (of that report) what information a site specific Flood Risk Assessment will need to address.
- 3.18 Policy LP45 (3) requires applicants to submit detailed site specific Flood Risk Assessment (FRA). The findings of this assessment report, the Strategic Flood Risk Assessment Technical Report (June 2014), the PUSH SFRA mapping layers and supplementary information provided by the Environment Agency (which can be found on the PUSH SFRA website) will act as the starting point for more detailed assessments to be carried out. Preliminary assessments indicate that a combination of measures may be appropriate as part of an overall strategy for flood protection in this part of the Borough. Climate change information from the SFRA particularly using the 2115 layer shows the predicted flood level and this information will be factored into the detailed investigations of site specific Flood Risk Assessments.

- 3.19 It is recommended that developers engage in early discussions with the Borough Council, the Environment Agency and the Eastern Solent Coastal Partnership to identify key issues to be addressed in site specific Flood Risk Assessments. It may also be appropriate to include other key organisations notably Hampshire County Council and the relevant water companies to identify any further flood risk issues as part of the pre-application process.

4.0 STRATEGIC FLOOD RISK ASSESSMENT FOR DRAFT ALLOCATIONS

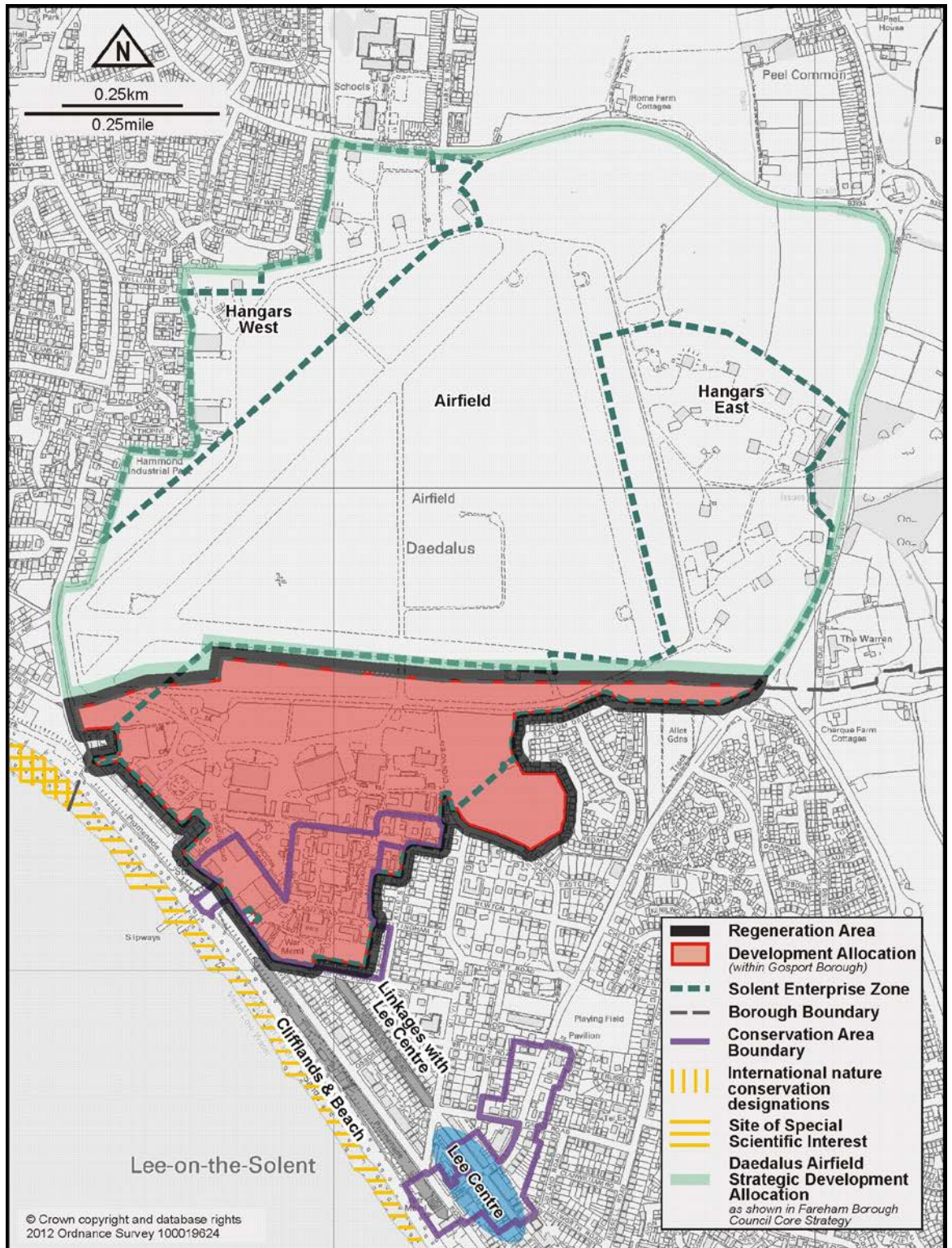
- 4.1 The options for the proposed Regeneration Areas have been considered taking into account the policies of the National Planning Policy Framework and current practice guidance. Using the SFRA mapping and issues raised in the SFRA Final Report, the approach for site selection advocated by the SFRA was used to carry out the Borough Council's assessment.
- 4.2 The NPPF explains the aim of the Sequential Test is to steer new development to areas with the lowest probability of flood risk. The SFRA provides the starting point for applying the test. Local Plans should apply a sequential, risk-based, approach to the location of development. A number of factors need to be taken into account including:
- Applying the Sequential Test;
 - if necessary applying the Exception Test;
 - safeguarding land from development that is required for current and future flood management; and
 - using opportunities by new development to reduce the causes and impacts of flooding.
- 4.3 The assessment for each of the proposed strategic allocations follows the sequential test approach illustrated on page 26 below of this Report. (Each step is set out in **bold**). The Priddy's Hard Heritage Area is not a Regeneration Area but it was included because of its location and role in developing the wider regeneration of the Gosport waterfront. It utilises the SFRA Map Sets including identifying any other key flooding issues that would need to be considered and where appropriate resolved, this work can also be used to assist in the preparation of site specific Flood Risk Assessments (FRA).
- 4.4 Where appropriate, other mapsets provided by the Environment Agency have been used to supplement the information in the PUSH SFRA. This additional information has been developed since the PUSH SFRA was prepared and relate to information on a number of matters including groundwater and surface water flooding.



(Source: PUSH SFRA December 2007)

SFRA FINDINGS FOR PROPOSED REGENERATION AREAS

DAEDALUS



Background

- 4.5 The Daedalus site is a former military base and lies to the north and north-west of Lee-on-the-Solent. The site covers a total area of approximately 200 hectares. The majority of the site (151 hectares), comprising the runways and some isolated airfield buildings, lies within the Fareham Borough Council administrative area. The remainder of the site (44 hectares) lies within the Borough of Gosport and this area contains most of the airfield buildings and accommodation blocks. Policy LP5 of the draft Local Plan sets out the preferred strategy for the re-use of the Daedalus site located in the Borough. It is also necessary to have regard to the proposals for the other parts of the Daedalus site within Fareham Borough. Infrastructure requirements will need to be considered for the whole site including improvements to the road system and public transport provision. In August 2011 the Solent Local Enterprise Partnership successfully bid for the Daedalus site to become an Enterprise Zone and this allows real potential to deliver significant business and employment opportunities. The Borough Council's planning strategy for the site is set out below.

Employment

- 4.6 The area has been recently designated as an Enterprise Zone with a focus for creating a high quality business-led, mixed use environment which will compliment and support the regeneration of the existing local centre and seafront.
- 4.7 The latest estimates demonstrate that 75,000 sq.m. (gross) floorspace could be accommodated in the Gosport Borough part of the site. There should be flexibility regarding the type of employment floorspace to be accommodated on the site but should maximise the opportunities at the site to create an exciting and creative employment area.
- 4.8 The site has a number of advantages that make it attractive to a variety of sectors including:
- Access to an airfield has the potential to attract businesses within the aviation sector including both manufacturing and service businesses;
 - Its seafront location on the Solent makes it an attractive location which can be an important choice for certain types of businesses such as the knowledge sector; and
 - The large area of land available provides flexibility for a variety of building types to be accommodated.

Leisure/Recreation/Marina uses

- 4.9 The frontage of the site presents significant opportunities to enhance and diversify the visitor attractions of Lee-on-the-Solent, which is popular with day visitors. The re-use of historic buildings such as the Ward Room offer opportunities for hotel/conferencing facilities. There may also be opportunities for food and drink establishments as well as the development of watersports facilities and indoor sport/leisure venues. Access to the Solent via the slipway will be an important asset for certain watersport activities.

Community Uses

- 4.10 From the numerous consultations with the local community and general enquiries, it is clear that there appears to be demand for a variety of community uses on the site. Consideration will need to be given to those where there is significant

demand and whether they are suited for the re-use of existing buildings or whether there is the need for purpose-built facilities. Potential facilities could include education, skills and training uses, health facilities and buildings to be used by community groups.

Retail

- 4.11 It is considered that the site is not suitable for significant retail as this is more appropriately placed in main centres, primarily Gosport Town Centre, with more local facilities serving Lee residents to be located within the Lee-on-the-Solent District Centre. However a small amount of retail such as a small convenience store to serve the site or specialist shops to serve particular leisure activities on the site (e.g. watersports) may be considered appropriate.

Residential

- 4.12 It is considered important to have an element of residential development on the site it is proposed that up to 350 dwellings could be accommodated. There are many buildings in the historic core of the site are more appropriate for residential use rather than other uses. Dwellings will include affordable housing and a mix of sizes and types to meet local requirements.

Strategic Flood Risk Assessment for Daedalus

- 4.13 The question format used comes from the recommended approach by Atkins in the PUSH SFRA Final Report (December 2007) and has been applied to all the Regeneration Areas allocated through the draft Local Plan.

- 4.14 **Q: *Is the potential allocation site in an area at low risk of flooding?***

A: Site is not within Flood Zone 2 or 3.

- 4.15 **Q: *Is there an alternative potential allocation site in an area at low risk of flooding?***

A: Yes. Rowner is also in Flood Zone 1.

- 4.16 **Q: *Is this alternative site less suitable taking into account other planning issues?***

A: Yes.

Rowner: It is anticipated that a net gain of 200 additional units could be provided within the overall redevelopment scheme which will provide 700 dwellings in total.

Consider original site: Daedalus

- 4.17 **Q: *Will the proposed development type(s) be acceptable in this Floodzone?***

A: The proposed land-uses are set out below:

Proposed Land – uses	NPPG vulnerability classification
Retail, Leisure and commercial	Less vulnerable
Residential	More vulnerable

- i) All uses of land are appropriate in this zone.
- ii) As the site is over 1ha it is necessary to assess the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and

the effect of the new development on surface water run-off. This will need to be considered as part of a FRA with any planning application.

- iii) It will be necessary to reduce overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques where appropriate.

4.18 **Q: Are there other potential allocation sites in the same flood risk zone?**

A: No. It has already been established that Daedalus is a preferred allocation when considering other planning issues.

Other Key Considerations

Undefended flood hazard (1B)

4.19 The site is not considered to be at any hazard risk.

Indicative areas benefiting from flood defences (1C)

4.20 Not applicable for this site as site is outside of Flood Zone 3.

Danger to people from breaching (1D)

4.21 Not applicable for this site as site is outside of Flood Zone 2 or 3.

Other sources of flooding (1F series of mapsets)

4.22 **Wave overtopping (1F1):** The site is adjacent a moderate wave energy frontage- the slipway would be most susceptible to these forces.

4.23 The findings of the PUSH SFRA recommend that all applications for development within the vicinity of the open coast frontage of Gosport Borough include an assessment of extreme wave overtopping, regardless of which Flood Zone the site is in. This will ensure that this risk is always considered for new development in the relevant locations. The assessment of extreme wave overtopping should be appropriate to the scale of risk and may, in some cases, be ruled out as a significant risk quite easily, but should nevertheless be addressed.

4.24 **Groundwater flooding (1F2):** Within the PUSH region the key areas at risk of groundwater flooding are to the north of Gosport Borough in East Hampshire, Winchester, Eastleigh and Test Valley where highly permeable geology meets lower permeable geology as shown by Map Set 1F-2, which has been verified by inspection of the historical incident records. There have been no observed incidences of groundwater flooding in Gosport. Site specific FRAs within Gosport Borough should not need to consider this form of flooding.

4.25 The site is within an area of moderate permeability. This will have implications when considering Sustainable Urban Drainage System.

4.26 **Impact of land use change on surface water run-off (1F3):** Most of the Daedalus site in Gosport is classified as existing developed area and therefore changes of use or further development are unlikely to significant affect the existing surface water rates and volumes.

4.27 The northern part of the site in Gosport site is largely undeveloped and therefore it is considered that new development may have a moderate impact on surface water run-off. This will need to be considered in detail as part of a site specific FRA. Investigations should include SUDs options to manage surface water (Infiltration and combined systems).

- 4.28 **Potential sources of overland flow (1F4):** Within Gosport Borough there are a number of areas which the SFRA has identified as having a 'high' to 'very high' potential for generating overland flow due to the highly urbanised nature of the Borough. FRAs for sites that are found to be within or in the vicinity of these areas, especially if the local topography places the site at a lower elevation than the surrounding land and hence downstream of the source, should consider the impacts and management of flooding due to overland flow. Within Daedalus there are significant ranges of potential sources of overland flow, from 'low' to 'very high'. Consequently this will need to be investigated further as part of a site specific FRA.
- 4.29 **Surface water sewer flooding (1F5):** The SFRA did not show any observed flooding incidences in this location. However as this is an important strategic site, the Borough Council considers it prudent to consider this issue as part of a site-specific FRA and recommends consultation with Southern Water to ensure the proposed development will not have an adverse impact on the local drainage system.
- 4.30 **Climate change implications (for 2115):** By 2115 the Daedalus site remains in Flood Zone 1 and consequently there are no additional significant flooding issues.
- 4.31 By 2115 the existing defences for the area fronting the seafront in close proximity to Daedalus will be reduced to less than 20 years to 20-50 years standard of protection and that investment to improve these frontages to a 200 year standard of protection will be of a low to medium level of investment.

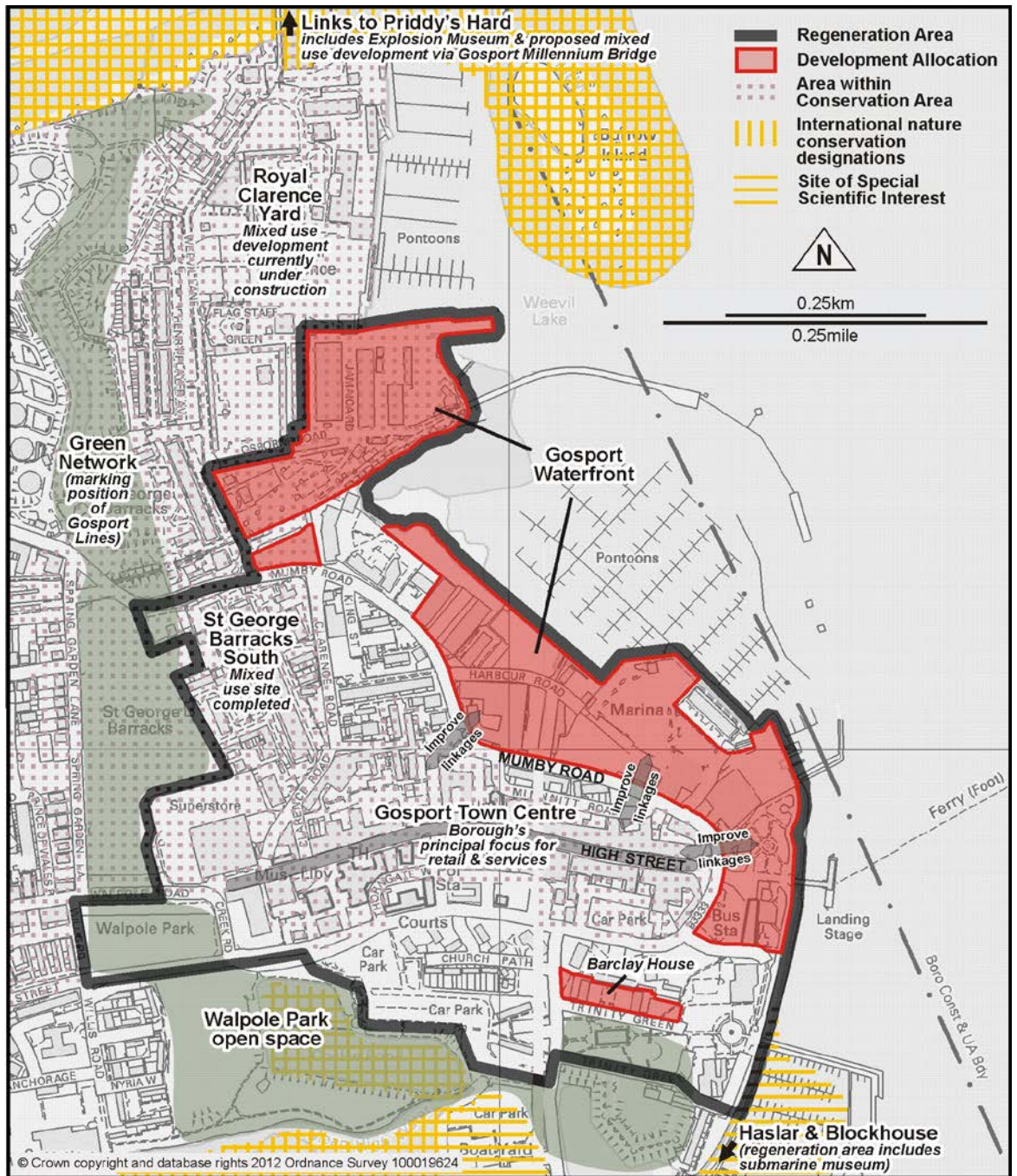
Conclusion

- 4.32 **Q: *Consideration of site details and flood risk management requirements. Is the proposed development site likely to be safe and appropriate?***
- A: Site is suitable and should be considered as a priority for development – no exception test required. Although further investigation on issues such as overland water flow, surface water and sewer flooding will be required as part of a site specific FRA. From the SFRA, there do not appear to be overwhelming flooding constraints and therefore it is considered that development is likely to be broadly acceptable in terms of flood risk assessment.

Implications for the Publication Version of the Local Plan

- 4.33 Daedalus offers significant employment - led regeneration opportunities for the Borough. As part of a mixed use scheme there would be opportunities to accommodate some housing but the use of the airfield and existing facilities to enhance marine and aerospace services is a unique feature and therefore the Core Strategy would wish to maximise these facilities. The site is located in Flood Zone 1 and meets the tests set out in the sequential approach. The SFRA has shown other flooding issues that would need to be investigated further and addressed in a site specific FRA.

GOSPORT WATERFRONT AND TOWN CENTRE



Background

- 4.34 The area known as Gosport Waterfront and Town Centre as shown on the above plan is one of the Borough's key planning sites and is identified in the PUSH Business Plan as a strategic site.
- 4.35 Draft policy LP4 permits the following uses:
- 33,000sq.m. of employment floorspace including marine related uses and offices
 - Upto 6,500m² A1 floorspace and additional floorspace for other town centre uses;

- Community and leisure uses;
 - 700-900 dwellings;
 - New transport exchange ; and
 - Enhanced public realm.
- 4.36 The site's location overlooking Portsmouth Harbour makes this location a very desirable residential setting. However the Council considers that this site offers significant regeneration benefits that are unrivalled anywhere else in the Borough. There are no other alternative sites in the Borough that can deliver the level and mix of uses that the Gosport Waterfront is able to do.
- 4.37 The site is located in Flood Zone 3 and is identified as a mixed-use allocation in the GBLPR and is in a sustainable location situated close to a major transport hub in the Borough with easy access via the Gosport Ferry to Portsmouth Harbour Railway Station. The site provides a significant regeneration opportunity for the Council to capitalise on its unique waterfront location and opportunities to link the regeneration of this area to the adjacent Town Centre and surrounding areas. It has the potential to accommodate significant levels of development. The regeneration of the waterfront is a strategic priority of the Borough Council as set out in the Council's Corporate Plan.

Strategic Flood Risk Assessment for the Gosport Waterfront and Town Centre

- 4.38 The findings of the SFRA in respect to the Gosport Waterfront site are set out below. The accompanying specific maps are in Appendix 1 to this report.
- 4.39 **Q: *Is the potential allocation site in an area at low risk of flooding?***
A: No. The site is located in Flood Zones 2 and 3.
- 4.40 **Q: *Is there an alternative potential allocation site in an area at low risk of flooding?***
A: Yes:
(i) Rowner is located in Flood Zone 1.
(ii) Daedalus is located in Flood Zone 1.
(iii) Haslar Peninsular is mainly located in Flood Zone 2 with small pockets in Flood Zone 3. The site of the hospital is situated on higher ground levels and is in Flood Zone 1.
- 4.41 **Q: *Are these alternative sites less suitable, taking into account other planning issues?***
A: The alternative sites considered are unsuitable for a number of reasons, these are set out below:

Land at Rowner

- 4.42 Significant areas of land at Rowner have already been brought forward for regeneration. Outline planning permission was granted in April 2009 for a mixed-use proposal. It is anticipated that the site has capacity to accommodate a net gain of 200 additional units as part of the redevelopment of the existing site resulting in an overall scheme for 700 residential units in total.

Daedalus

- 4.43 The Daedalus site is already being put forward as a regeneration area in the draft Local Plan. This site is capable of securing substantial employment opportunities

for local residents. It has already been identified as a strategic location for accommodating some housing. It is regarded as a key opportunity site within the Borough to provide economic led regeneration benefits. If substantial levels of housing in excess of that being promoted through the draft plan may result in the reduction of securing local employment and other key community uses.

Haslar Peninsula

4.44 This area was largely in Ministry of Defence ownership. The hospital has now been closed with all services from the hospital transferred the Queen Alexandra Hospital at Cosham and the Gosport War Memorial. The hospital site has been purchased by Our Enterprise.

4.45 There are a number of planning constraints to the former hospital site including poor access to the peninsular. Within the Haslar peninsular, there is the Haslar Peninsula Conservation Area, Scheduled Ancient Monuments (SAMs) at Haslar Gunboat Yard and parts of Fort Blockhouse. The former hospital site also has a number of important historic buildings listed at Grades II and II*, and a historic Grade II Listed Park. The unique historic significance of the site and the Council’s preferred option to see it retained for mixed-use, community health led development means that residential opportunities are likely to be limited.

4.46 **Q: Consider Gosport Waterfront and Town Centre Regeneration Areas. Will the proposed development type(s) be acceptable in this Flood Zone?**

A: (i) All developments in the Flood Zones will require site specific FRA. The whole of the development area falls within Flood Zones 2 and 3 with the majority of the site falling within Flood Zone 3. The NPPF states for areas where residential uses are proposed, it will be necessary to meet the requirements of the Exception Test. Where residential elements are located within Flood Zone 2, residential development is considered appropriate but would require a FRA. Should other uses classified as ‘more vulnerable’ that may form part of a submitted planning application would also need to be considered against the Exceptions Test. Uses falling into this category would include, non-residential uses such as health services, nurseries residential care homes etc. The table below sets out the types of uses that could be accommodated on the site and the NPPF vulnerability classification:

Proposed Land – uses	NPPG vulnerability classification
Retail, Leisure and commercial	Less vulnerable
Residential	More vulnerable

(ii) The less vulnerable uses envisaged on the site would not require the Exception Test to be passed. The residential element would. A site specific FRA would be required for all forms of development.

Q: Is the Exception Test satisfied?

4.47 A: Yes see the section on Meeting the Exception Test on page 22.

4.48 **Q: Are there other potential allocation sites in the same FZ?**

A: Yes. Haslar peninsula, but this has poorer access and offers a different level and type of regeneration benefits primarily related to the need to provide care and medical facilities. It is also not well placed to provide to the same level of employment opportunities as the Gosport Waterfront site. It has a number of significant including a number of Grade II Listed Buildings as well as the hospital itself which is Grade II* and a Grade II Registered Historic Park.

There are other key constraints including, notable trees, boundary walls and the Memorial Garden.

Other Key Considerations

Undefended flood hazard (1B)

- 4.49 There are 'moderate' to 'high' areas with some smaller pockets of 'very high' areas of undefended flood hazard. Those areas where the undefended flood hazard represents a higher danger are those where the draft SFRA shows the 2007 Standard Of Protection (SOP)s are less than a 1: 200 SOP.

Indicative areas benefiting from flood defences (1C)

- 4.50 Under the SFRA model, the Gosport Waterfront area does not show any areas benefiting from indicative Areas Benefiting from Defences (iABDs). However the main SFRA report explains that it is only in those areas where sea defences are **consistently** benefiting from the present day 1:200 year SOP along the frontage of the flood cell being assessed will show the hatching of the iABD. The SFRA acknowledges that the high level strategic modelling and assessment does not take into account the benefit provided by all defences. Note the coastal defences along the bus station frontage show crest levels (i.e. the pink lines) higher than 1:200 year extreme sea level. These can be potentially identified as ABDs if more detailed assessments (beyond the scope of the SFRA) of the defences are undertaken.
- 4.51 The SFRA shows that for almost the whole of the harbour frontage (except for a small section opposite Falkland Gardens) for the site location is protected from a tidal 0.5% annual exceedence probability. What the SFRA does not show for this part of the town are indicative areas benefiting from defences. It is important to note that these are only shown if the entire frontage of a flood cell is connected to a 1:200 year standard, where this may not be the case the areas are not shown even if the majority of it is protected to that standard. This does not imply that land not shown does not benefit from any defences just not necessarily to the 1:200 Standard in a continuous block.

Danger to people from breaching (1D)

- 4.52 Where the SFRA shows that the SOP along part of the Gosport Waterfront frontage is less than a 1:200 year standard, there are quite large areas where danger from breaching could occur in an extreme flood event. Most of the colour is yellow representing a 'danger for some'. However there are also some areas identified as posing a 'danger for all' should breaching of the defences occur.

Other sources of flooding (1F1 series of mapsets)

- 4.53 **Wave overtopping (1F1):** There are no incidences of historical wave overtopping in this location shown on the SFRA.
- 4.54 The SFRA shows that this part of Portsmouth Harbour is subject to low wave energy. The SFRA recommends that for those sites located along the open coast, should include an assessment of extreme wave overtopping irrespective of the Flood Zone. Even if the risk is low the assessment still needs to be done.
- 4.55 **Groundwater flooding (1F2):** The SFRA shows the local geology as being of being of 'moderate permeability' with no historical incidences of groundwater flooding. The SFRA guidance notes specific to Gosport indicate that site specific FRAs do not need to take into account this form of flooding.

- 4.56 **Impact of land use change on surface water run-off (1F3):** The impact of existing land use change on surface water run-off is shown as being moderate across the whole of the study area.
- 4.57 **Potential Sources of Overland Flow (1F4):** Within Gosport there are a number of areas which have a high to very high potential for generating overland flow due to the high runoff potential of urban areas. These areas include parts of the Gosport Waterfront area. The SFRA recommends that for site specific FRAs either within or close by to these areas this should be further investigated. The Surface Water maps prepared by the Environment Agency do identify pockets of areas where this may be an issue and therefore the Borough Council's assessment recommends potential applicants to discuss this as part of any early discussions with the Environment Agency.
- 4.58 **Surface water sewer flooding (1F5):** The SFRA does not show any recorded incidents of sewer flooding in this location, however, because of the scale of development potential under consideration, site specific FRAs would need to consult Southern Water to investigate the development impact on the existing drainage network.
- 4.59 **Indicative Investment Indices (2007):** Flood Zone 3 areas show a high probability of flooding (a 1:200 year extreme sea level). Many of the defences in the PUSH coastal area are at a height below this extreme sea level. The SFRA identifies an indicative investment index from low to high. This is based on the potential cost required to raise the defence levels to above a 1:200 and a 1:1,000 year extreme levels.
- 4.60 The investment index is based on draft EA unit cost database which has been developed by Arups for the Environment Agency. The indices on the maps represent the per linear metre investment index based on the difference between the existing crest level and the crest level required to exceed the 1:200 or 1:1,000 extreme sea levels (ESL). To assess the relative level of investment required to raise the SOP for the entire frontage, then the length of frontage should be taken into consideration as well as the per linear metre investment indices along the front.
- 4.61 In terms of Gosport Waterfront the SFRA shows that for most of the frontage along Mumby Road the investment priority to bring the SOP up to a 1:200 year standard (at 2007) is considered to be low priority (represented by a yellow solid line) because of the relatively high standards of defences currently in place along this coastal frontage. There is a small section between Mumby Road and the Bus Station (represented by the orange solid line) requiring a medium term investment priority; and south towards the Bus Station where the Map Sets indicate no current investment is required as indicated by the solid green lines. However when the SOP layer is applied at 2115, the position is rather different. The main stretch of the Gosport Waterfront frontage is shown as a solid red line indicating in general a less than 20 year SOP - with some isolated pockets of defences being of a higher standard (see printed map). Despite this, in terms of investment priority at 2115, the frontage along Gosport Waterfront is shown as a medium priority for investment purposes. This report recommends that further work is required to investigate the necessary levels of investment needed to protect any proposed development along the Gosport Waterfront for the duration of its design life i.e. 100 years.

- 4.62 Where proposed development is likely to include the provision of new flood mitigation measures, the SFRA recommends that these should be funded by the developer and developers proposing new mitigation measures which solely benefit new development should not call on the public purse as a means to secure funding. In addition defences funded through public resources may only defend to an existing standard that could be unsafe for development. This needs to be considered when looking at the effects of standards of protection in the light of increasing sea level rise. It may be necessary to secure some funding through alternative funding sources such as Community Infrastructure Levy.
- 4.63 **Climate change implications (for 2115):** The map layers in the SFRA show that as would be expected using current climate change data that the risk of flooding in a higher flood risk zone increases for both Flood Zones 2 and 3.
- 4.64 The Eastern Solent Coastal Partnership is preparing a Coastal Flood and Erosion Risk Management Strategy for the Borough's coastline. This document will address coastal management issues over a 100 year time frame and is consistent with the actions arising from the North Solent Shoreline Management Plan. The Strategy is due for completion in April 2013 and will identify the preferred technically, economically and environmentally sound and sustainable strategic options for managing those risks over a 100 year appraisal period as well as defining an implementation plan.

Conclusions

- 4.65 **Q: Consider site details and flood risk management requirements. Is the proposed development site likely to be safe and appropriate?**
A: This strategic area satisfies all of the criteria set out in the Exception Test. Through the work on the SFRA and preliminary discussions with the Environment Agency a number of important issues have been identified on this aspect. Site specific FRAs will need to demonstrate how the following matters can be addressed. These are set out below:
- i) Safe entry and exit to and from the site should a severe flooding event occur;
 - ii) Flood defence infrastructure;
 - iii) Possibility of identifying a larger footprint for development; and
 - iv) Raising infrastructure levels i.e. raising Mumby Road to allow for safe exit and entry for site users and emergency services.
- 4.66 Taking on board all the information set out in the assessment above. Further consideration of flood risks and options for management at this strategic location was undertaken and the findings are set out in the accompanying document: Strategic Flood Risk Assessment Technical Report. In conclusion, it is considered the development is considered capable of being made safe in the event of a severe flood event and is therefore likely to be acceptable in this location.

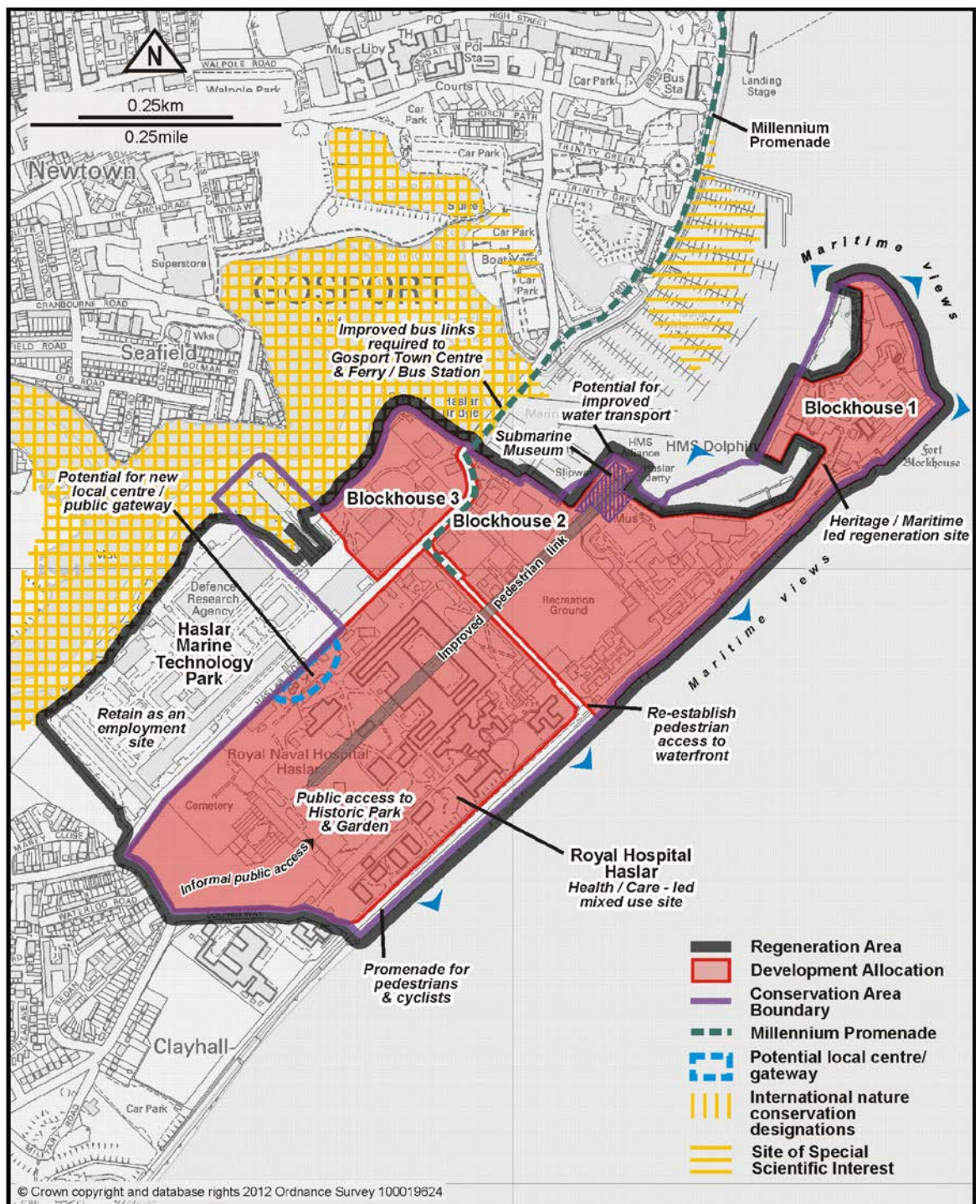
Implications for the Publication Version of the Local Plan

- 4.67 The regeneration of the Gosport Waterfront strategic area is a major component of delivering the Council's spatial strategy for the Borough. In terms of its role within the sub region. The rationalisation of MoD operations has led to a contraction of local jobs and increased out-commuting to other parts of South Hampshire. If these trends are allowed to continue the situation in Gosport will be exacerbated with significant social, economic and environmental consequences

not only for the residents of Gosport but also for others within the sub region. Consequently in order to achieve the PUSH vision of employment-led regeneration in South Hampshire, the 'city centres first' and the 'regeneration of urban areas' policy initiatives need to be fully delivered. For Gosport, the regeneration opportunities presented by the Gosport Waterfront and other key sites including the Enterprise Zone at Daedalus will make a significant contribution towards delivering the PUSH vision.

- 4.68 The Gosport Waterfront is in Flood Zones 2 and 3 and has been subject to a SFRA. It is considered that the site offers significant regeneration benefits that are unrivalled anywhere else in the Borough. Consequently using the sequential approach set out in the NPPF there are no alternative sites in the Borough to deliver the quantum and mix of uses. It is necessary to ensure that the site fully accords with the requirements of the Exception Test. The site provides wider sustainability benefits these matters are addressed more fully addressed in the relevant background papers to accompany the Publication Version of the draft Local Plan. It is located on previously developed land and that there are no reasonably available sites on previously developed land capable of providing the regeneration benefits associated with this site.
- 4.69 A flood risk assessment will be required demonstrating that the development is safe from flooding without increasing flood risk elsewhere and where possible will reduce flood risk overall. Any site specific FRA will need to address the following matters:
- Safe entry and exit to and from the site should a severe flooding event occur (this could include raising the level of local roads); and
 - Appropriate flood defence infrastructure is in place including dealing with the effects of sea-level rise. Significant further work will be required to demonstrate the deliverability and suitability of flood defences for the Waterfront area.
- 4.70 Early discussions with the Environment Agency and the Eastern Solent Coastal Partnership regarding development at the Gosport Waterfront will be necessary.
- 4.71 Most of the adjoining Town Centre is within Flood Zone 1, with parts in Flood Zone 2 and a very small area within Flood Zone 3 at the eastern end of the High Street. Where proposals come forward within the Town Centre these will need to meet the requirements of the NPPF.

HASLAR PENINSULA



Background

4.72 The Haslar Peninsula comprises of the former Royal Hospital Haslar, Fort Blockhouse and the Haslar Marine Technology Park.

Royal Hospital Haslar

4.73 The Royal Hospital Haslar closed as a military hospital in 2007 and the NHS ceased operating from the site in July 2009. The site has been purchased by private developers.

- 4.74 The site is approximately 23 hectares and has been designated as a Grade II Listed Park on English Heritage's Register of Parks and Gardens of Special Historic Interest. The site includes a number of Listed Buildings and other important historic buildings. Construction began in 1745 and was the first purpose-built naval hospital for the sick and wounded in England. The site also includes significant areas used for burial. The key characteristic of the Hospital site is the formality of the layout and the form of the buildings and grounds with the subservient scale of buildings to the main hospital. Further details can be found in the Conservation Area Appraisal.
- 4.75 The Publication Version of the Local Plan sets out a number of possible uses for the former hospital site. These include:
- Medical, health and care facilities including residential care;
 - other employment uses;
 - small scale retail and services;
 - appropriate leisure and tourism; and
 - up to 300 dwellings provided it can be demonstrated that this is needed to enable other medical, health and care uses to come forward on the site.

Fort Blockhouse

- 4.76 The Borough Council is aware that all or significant parts of the Blockhouse site could be released in the medium-long term during the Plan period and whilst little detail is available at this stage it is important to recognise the potential of this site for delivering regeneration benefits and its linkages with the Haslar Hospital site.
- 4.77 The site is adjacent to the mouth of Portsmouth Harbour and has a frontage with the Solent and Haslar Lake. A blockhouse or fortified tower is known to have been located on this spit of land from 1417 and the site has been developed considerably since then. It contains significant historic buildings including two scheduled ancient monuments (Fort Blockhouse and Haslar Gunboat Yard).
- 4.78 The Blockhouse site occupies three land parcels known as Blockhouse 1, 2 and 3. Blockhouse 1 (former HMS Dolphin) includes a Submarine Escape Training Tank and 33 Field Hospital as well as MoD administration, training and sports and welfare facilities. Blockhouse 2 includes the RN Submarine Museum and the Joint Services Adventurous Sailing Training Centre (JSASTC). The Museum is a popular visitor attraction that will be retained on the site. Blockhouse 3 (former HMS Hornet) is separated from Blockhouse 1 and 2 by Haslar Road and is used jointly by the JSASTC and the Hornet Sailing Club primarily as a boatyard.
- 4.79 The intensity of use on the whole site is considerably lower than when the site was used as a submarine base. It currently employs almost 400 people, whilst in 1986 it employed just under 2,500 people (Source: University of Portsmouth 2008).

Haslar Marine Technology Park

- 4.80 The Haslar Marine Technology Park is a major employment area in the Borough with a number of hi-tech and research and development businesses. It is envisaged that these employment uses will be retained and expanded where these opportunities arise including the potential linkages with the other two sites.

Strategic Flood Risk Assessment for the Haslar Peninsula

4.81 The findings of the SFRA are set out below the maps relating to the assessment for the Haslar peninsula is in Appendix 2.

4.82 **Q: *Is the potential allocation site in an area at low risk of flooding?***

A: The hospital buildings and grounds are at a high level and so in themselves are not in an area of high flood risk and fall within Flood Zone 1. However parts of Haslar Road and Clayhall Road are located in Flood Zone 2 and some parts of the Haslar Marine Technology Park showing Flood Zones for present day scenarios. The climate change scenario for 2115 is applied, then as expected, the amount of land falling within Flood Zone 3 increases showing significant areas of land on the peninsula are found in Flood Zones 2 and 3. In order to facilitate development, site specific FRAs will need to undertake detailed work investigating safe access to and from the site.

4.83 **Q: *Is there an alternative potential allocation site in an area at low risk of flooding?***

A: Yes.
(i) Daedalus;
(ii) Rowner.

4.84 **Q: *Are these alternative sites less suitable taking into account other planning issues?***

A: The alternative sites considered are unsuitable for a number of reasons, these are set out below.

Daedalus

4.85 This site is capable of securing substantial employment opportunities for local residents. It has already been identified as a strategic location capable of accommodating housing. It is regarded as a key opportunity site within the Borough to provide economic led regeneration benefits. However, substantial levels of housing in excess of that promoted on the site may result in the reduction of securing local employment and other key community uses.

Land at Rowner

4.86 Significant areas of land at Rowner have already been brought forward for regeneration. Planning permission was granted for a mixed-use development in April 2009 (700 residential units in total). As part of this scheme, there is potential to accommodate a net gain of 200 additional units.

Consider original site: Haslar Peninsula

4.87 **Q: *Will the proposed development type(s) be acceptable in this Flood Zone?***

A: Yes. But acceptability of uses is likely to be reliant on the issues raised in stage one being resolved (i.e. safe access).

Proposed Land – uses	NPPG vulnerability classification
Residential (limited due to other SA constraints)	More vulnerable
Health (depending on what is proposed)	More vulnerable (i.e. hospital or non-residential uses for health services) but Highly vulnerable if including an ambulance station – this is classified as

	essential infrastructure)
Employment	Less vulnerable
Commercial	Less vulnerable

4.88 **Q: *Is the Exception Test satisfied?***

A: Exception Test not required for Royal Haslar Hospital site but safe access to and from the site would need to be addressed should an extreme flood event occur is an issue that would need to be addressed through a site specific FRA. In relation to the Fort Blockhouse area, the exception test would need to be passed for proposals falling into a ‘more vulnerable’ category (if located in Flood Zone 3) and ‘highly vulnerable’ (if located in Flood Zone 2).

4.89 **Q: *Are there any other potential allocation sites in the same flood risk zone?***

A: Yes.
 (i) Gosport Waterfront
 (ii) Town Centre

4.90 **Q: *Consider other sites. Select best site(s) based on flood risk and other material planning considerations?***

A: There are a number of established employment uses on the Haslar peninsula through Fort Blockhouse and the Haslar Marine Technology Park as well as the medical services currently provided on the hospital site.

4.91 **Q: *Consideration of the site details and flood risk management requirements?***

A: The details of any potential scheme are not known at this stage. The Council’s preferred mix of uses is for health/care-led facilities on the former hospital site. The hospital site itself falls within Flood Zone 1 due to its high topography, the key issue for any site-specific FRA is likely to be safe access to and from the site should an extreme flood event occur and existing defences breached. The preferred options for the remaining parts of the peninsula would be employment-led.

Other Key Considerations

Undefended Flood hazard (1B) and (1C) Indicative areas benefiting from flood defences

4.92 The SFRA identifies large areas of green or ‘low’ flood hazard. This is defined in the SFRA as areas where there may still be shallow flowing water or deep standing water. However interspersed with this are pockets of moderate through to very high risks where there could be extreme danger with deep flowing fast water. The SFRA recommends that site specific FRAs for proposals within these areas should still undertake a quantitative assessment of defence standards, defence failure scenarios and overland flood flow.

4.93 Coastal defences in the Borough are not within a single ownership. In the case of the Haslar Peninsula coastal defences are in the ownership of the Ministry of Defence. It has not been possible to date to ascertain a comprehensive picture of the condition of coastal defences along this peninsula. Where information about defence data exists, the SFRA shows that for the Haslar Sea Wall the present day defences appear as being greater than 1:1,000 year standard. Although more detailed information about the conditions of the sea wall and the effects of climate change are likely to be needed as part of detailed site specific FRAs. It is proposed that the emerging coastal strategy will include information on the

defence assets at this location and will propose a preferred long-term strategic option for managing this coastline.

Danger to people from breaching (1D)

- 4.94 This map set only provides a guide as to where further detailed breaching may occur and where detailed analysis may be required in site specific FRAs as part of assessing the residual risk posed by development. In general terms, the SFRA shows that along the sea wall there are some areas where if the sea walls were breached there is potential for danger to people from breaching shown as areas for 'danger for some' and 'danger for most'. There are also large areas hatched in yellow ('Danger for some') and pockets of orange ('Danger for most') and red ('Danger for all'). It should be noted that this represents a precautionary approach and is there to assist developers in understanding what the residual risks may remain if they were to invest in defending an area to a 1:200 year (Flood Zone 3) or a 1:1000 year (Flood Zone 2) standard.

Other Sources of flooding (1F series of mapsets)

- 4.95 Set out below are other key flooding considerations in relation to this location that would need to be addressed as part of site-specific FRAs. The SFRA highlights potential issues.
- 4.96 **Wave energy (1F1):** This layer addresses the issue of flood risk from potential wave overtopping. The Haslar peninsula experiences both types of wave energy action. The western boundary alongside Haslar Marine Technology Park and along Haslar Marina, parts of Fort Blockhouse 2 and 3 and the western part of Fort Blockhouse 1 are located alongside the more sheltered parts of Portsmouth Harbour and Haslar Lake. The northern tip of Fort Blockhouse 1 and along the south eastern length of Fort Blockhouse 1 to Royal Hospital Haslar experience 'medium wave energy' frontage. The SFRA recommends that development sites adjacent to 'medium wave energy' coastal frontages take into account the potential risk of wave overtopping and carry out site specific assessments for this issue. Therefore any site specific FRAs will need to address this matter. The SFRA did not show any historical incidences of wave overtopping, however in the SFRA, the work on extreme water levels assumed a 'still water' on which the effects of wave action were added. This is an important caveat because this part of the Borough is on the open coast and although the topography here is high it is possible that additional wave action could cause potential for flooding. Anecdotal evidence suggests this may be the case, and therefore site specific FRAs should also examine this issue as part of a detailed assessment.
- 4.97 **Groundwater flooding (1F2):** The SFRA does not show any historical incidences of groundwater flooding in this location. Bedrock permeability is classed as moderate. The most recent Environment Agency maps show some superficial deposits over the regeneration area.
- 4.98 **Impact of land use change on surface water run-off (1F3):** Assessments of surface water run-off is normally undertaken at site specific level. Site specific FRAs should carefully consider the impact of surface water run-off and the appropriateness of SUDS to manage surface water run-off. The SFRA shows most of the Haslar peninsula covered in yellow indicating a 'moderate impact', the north eastern tip of Fort Blockhouse 1 is red indicating 'high impact'. However the black hatching covers the whole of this location and the already built up nature of this location indicates a change in land use is unlikely to significantly affect the existing surface water runoff rates and volumes. The latest Environment Agency maps show some areas within the Haslar peninsula susceptible to pluvial surface

water flooding. This is predominantly low to medium risk but the Environment Agency maps for surface water flooding do broadly confirm where there are some small areas at a potentially higher risk from this form of flooding and therefore this assessment recommends more detailed investigations are made at the site specific FRA stage.

- 4.99 **Potential sources of overland flow (1F4):** The SFRA identifies substantial areas of 'high' to 'very high' potential susceptible to overland flow. However whilst this is not unusual in urban areas it is considered to be an issue that would need to be addressed in detail through a site specific FRA.
- 4.100 **Climate change implications for 2115:** The SFRA indicates that the extent of the boundary for Flood Zone 2 and in particular Flood Zone 3 would increase over the Haslar Peninsular area. This would not be unexpected given the predicted impacts of increased sea level rise and possible increases in storm surge. The key issue relates to the flood risk management measures required to protect development behind these defences.

Conclusions

- 4.101 **Q: *Consider site details and flood risk management requirements. Is the proposed development site likely to be safe and appropriate?***
A: As might be expected in this location, when the climate change layers are applied the coverage of Flood Zone 3 within the Haslar peninsula increases whilst the amount of coverage of Flood Zone 2 land decreases.

Existing defences assets and likely future investment

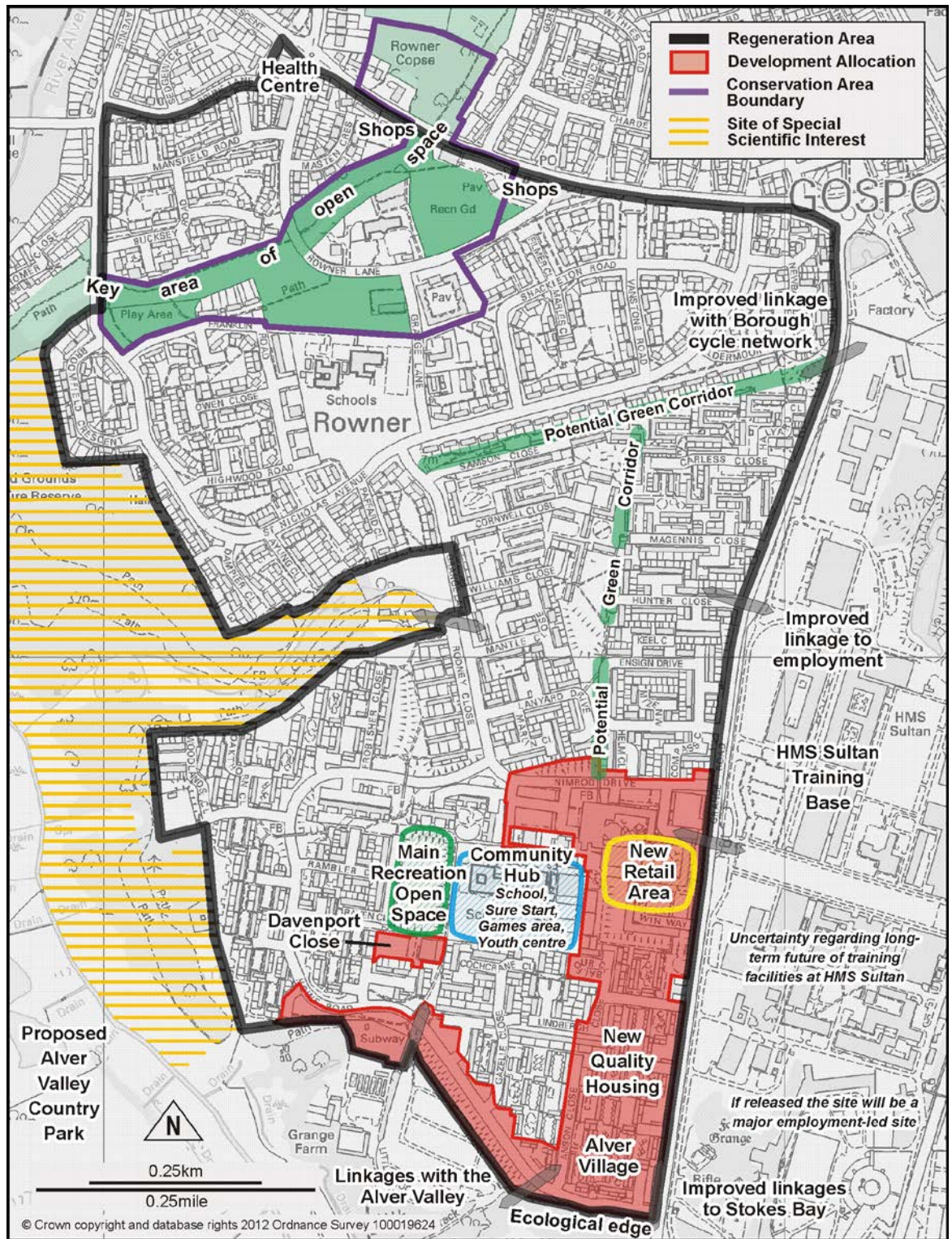
- 4.102 This is a significant issue. Further research is required to understand the condition and longevity of the existing defence assets along the Peninsula and what improvements are required. The emerging Hamble to Portchester Flood and Coastal Erosion Risk Management Strategy will update the assessment of asset standards in this area and discussions with the Eastern Solent Coastal Partnership are recommended as part of the planning applications process.
- 4.103 The SFRA has identified a number of important issues which are likely to need further investigation as future development opportunities on the peninsula emerge.

Implications for the Publication Version of the Local Plan

- 4.104 The Royal Hospital Haslar site is within Flood Zone 1 but surrounded by higher risk areas. Large parts of Fort Blockhouse are within Flood Zone 2, with limited areas in Flood Zone 3. However due to rising sea levels by 2115 significant areas of the Peninsula will be within Flood Zone 3. Significant flood defence infrastructure is likely to be required with the precise nature and scale still to be determined including the sea walls on the Solent frontage of Royal Hospital Haslar and Fort Blockhouse.
- 4.105 The areas for re-use and potential redevelopment at Royal Hospital Haslar meet the sequential test as it is within Flood Zone 1 and consequently the Exception test is not required. However the FRA for the site will need to address the evacuation issue as the site could potentially be surrounded by tidal floodwater in an extreme flood event as well as issues relating to surface water run-off.

4.106 With regard to Fort Blockhouse it is considered that due to its historic importance and its harbour mouth location, the site offers significant regeneration benefits. When applying the Sequential Test it is considered that these opportunities cannot be found in alternative locations in Flood Zone 1. It is therefore necessary to demonstrate that the Exception Test can be passed. The site has significant sustainability benefits and is on previously developed land. However it will be necessary for developers to demonstrate through a site specific FRA that any development can be designed to be safe from flooding in a manner which does not increase flooding elsewhere including safe evacuation and appropriate defences.

ROWNER



Background

4.107 The Borough Council's vision for Rowner is to create a high quality sustainable development promoting a regeneration process that will enhance the existing environment as well as a neighbourhood that offers a number of attractive dwellings and associated facilities.

- 4.108 In order to address these issues the Rowner Renewal Consortium was formed. This Consortium was launched in 2007 and is a partnership between Gosport Borough Council, Hampshire County Council, the Homes and Communities Agency, Portsmouth Housing Association and Taylor Wimpey. The Consortium undertook a series of consultation events to seek the views of the local community.
- 4.109 As a result of the consultation the Consortium prepared the Rowner Renewal Project (Alver Village). This project focuses on the area that is in most need of regeneration. The Strategic Area includes a wider area to allow the opportunity for additional residential led mixed-use projects to be brought forward in the future.
- 4.110 The Alver Village Project aims to deliver significant regeneration improvements to the Rowner area including the redevelopment of 'The Precinct' and associated areas. It will include new housing, retail and community facilities.
- 4.111 A number of options have been considered for the site and the assessment is detailed in the Design and Access Statement submitted with the original planning application.
- 4.112 The final proposal will include up to 700 new residential units, a new superstore with smaller units for retail, food and drink and other services appropriate for a local centre. The new centre will be integrated with existing community facilities including Siskin School, the new Sure Start Facility, youth centre and multi-use games area.
- 4.113 Davenport Close is located in close proximity to the much larger Alver Village Project. It is currently a disused swimming pool which has fallen into disrepair and significantly detracts from the local vicinity. These leisure facilities have now in effect been replaced with the development of the Gosport Leisure Park as well as outdoor recreational improvements in the adjacent Alver Valley. The site is considered suitable for approximately 15 dwellings and should take account of the wider Alver Village regeneration proposals. There is an existing planning permission for 14 units.

Strategic Flood Risk Assessment for Rowner

- 4.114 The boundary of the strategic area goes beyond that of the Alver Village Project itself and consequently flooding issues identified through the SFRA below encompass the broader Rowner area.
- 4.115 **Q: *Is the potential allocation site in an area at low risk of flooding?***
A: Yes the proposed strategic area is located in Flood Zone 1.
- 4.116 **Q: *Is flood risk at the site likely to be affected by climate change effects?***
A: No.
- 4.117 **Q: *Is there an alternative site not sensitive to climate change?***
A: No.
- 4.118 **Q: *Will the proposed development type(s) be acceptable in this Flood Zone?***
A: Yes see table below:

Proposed Land-uses	NPPG vulnerability classification
Residential	More vulnerable
Community	More vulnerable
Commercial	Less vulnerable

4.119 **Q: *Are there other potential allocation sites in the same Flood Risk Zone?***

A: Yes. Daedalus

4.120 **Q: *Consider other sites. Select best site(s) based on flood risk management requirements. Is the proposed development site likely to be safe and appropriate?***

A: Yes. The strategic area is located in Flood Zone 1. That part of the strategic area covered by the Alver Village Project has been the subject of detailed FRA as part of the planning application process. The Alver Village Project scheme was granted planning permission in April 2009.

4.121 **Q: *Is the Proposed development likely to be acceptable?***

A: Yes.

Other Key Considerations (for that part of the Rowner strategic area outside of the Alver Village Project boundary)

Indicative areas benefiting from flood defences (1C)

4.122 Not applicable in this case.

Danger to people from breaching (1D)

4.123 This Map Set identifies the potential danger to people that exists from breaches behind existing defences. The SFRA mapping levels shows that there is unlikely to be a danger to people from breaching of defences in this location.

Other sources of flooding (1F series of mapsets)

4.124 **Wave overtopping (1F1):** Not applicable in this case.

4.125 **Groundwater flooding (1F2):** The SFRA does not show any historical incidents of groundwater flooding in this area. The Map Set (1F2) shows 'moderate' permeability. The SFRA recommends that in Gosport, site specific FRAs would not need to consider this form of flooding.

4.126 **Impact of land use change on surface water run-off (1F3):** The SFRA identifies that further development in this location is likely to only have a moderate impact on the surface water run off regime. However, the SFRA is a 'high level' assessment and given the issue of managing surface water in highly developed urban areas such as Gosport is an important one; the Council will still expect to see this matter addressed at a localised level in site specific FRAs.

4.127 **Potential sources of overland flow (1F4):** There are some small pockets of 'high' and 'very high' areas of land largely within the northern and western parts of the development area. Site specific FRAs for proposals within these locations will need to consider the impacts and address the management of flooding due to overland flow.

4.128 **Surface water sewer flooding (1F5):** The SFRA does not show any recorded incidents of surface water sewer flooding at this location. However it still recommends consultation with Southern Water in order to establish whether a

proposed development would have an adverse impact on the local drainage network.

- 4.129 **Climate change implications (for 2115):** The strategic area remains within Flood Zone 1.

Conclusion

- 4.130 **Q: Consider site details and flood risk management requirements. Is the proposed development site likely to be safe and appropriate?**

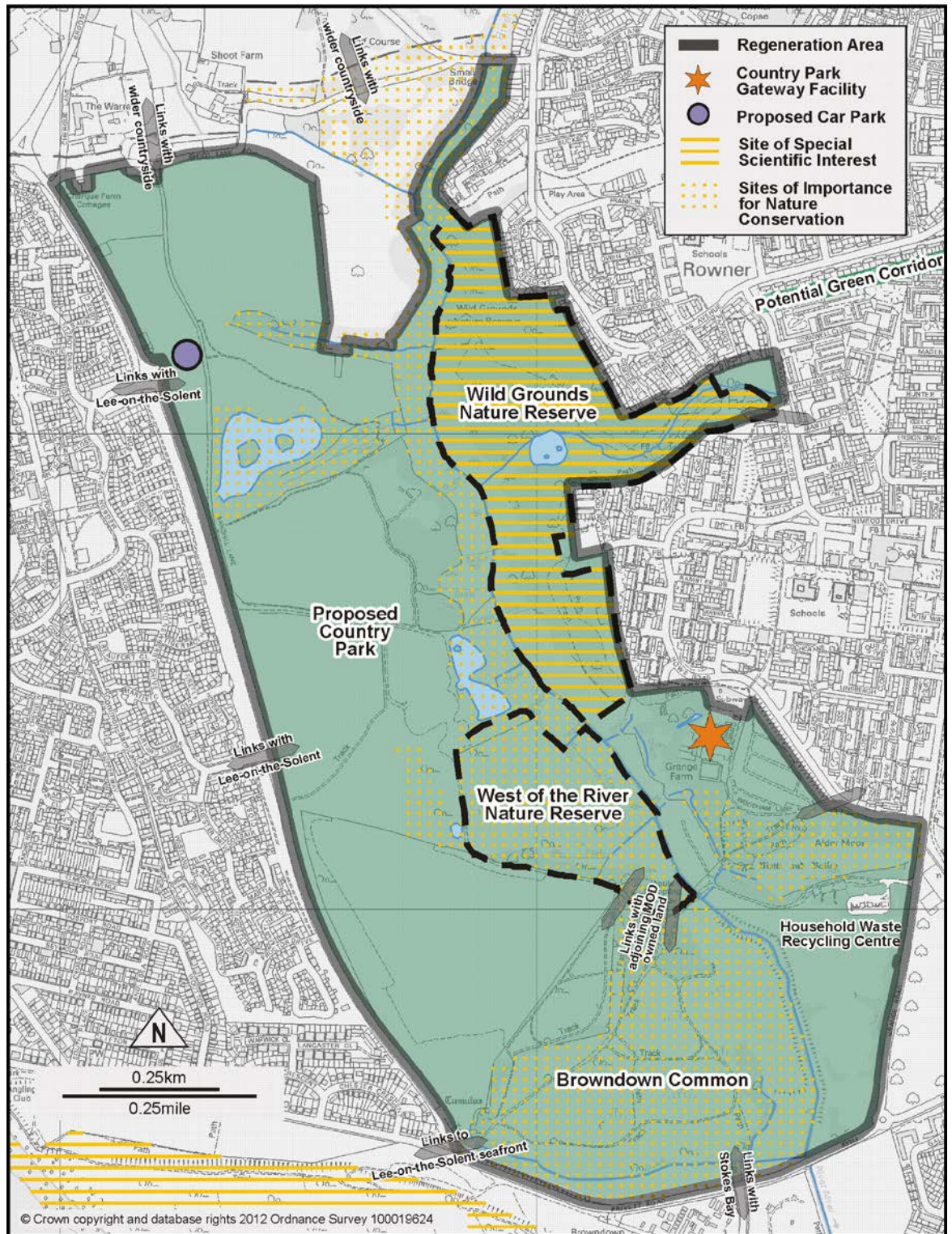
A: The regeneration of the Rowner area remains an important goal for the Borough Council. The strategic area is located within Flood Zone 1 and high quality development opportunities within it will make a significant contribution towards achieving that end. Although none of the Alver Village Project site is currently within Flood Zones 2 or 3 prospective developers are advised to contact the Environment Agency to determine if there are any issues that may affect the site. Surface water management is likely to be the key issue and an appropriate SuDS scheme may be required.

- 4.131 Proposed development is likely to be acceptable in flood risk assessment terms.

Implications for the Publication Version of the Local Plan

- 4.132 Although none of the Rowner area is currently within Flood Zones 2 or 3 prospective developers are advised to contact the Environment Agency to determine if there are any issues that may affect the site. Surface water management is likely to be the key issue and an appropriate SuDS scheme may be required.

THE ALVER VALLEY COUNTRY PARK



Background

4.133 A key element of the Borough Council's spatial vision for Gosport is the creation of the Alver Valley Country Park. Large parts of the Alver Valley are within Flood Zones 2 and 3. This forms a significant undeveloped gap between Gosport and Lee-on-the-Solent. The Borough Council has considered that the most appropriate use for the area would be for recreation purposes that retain its open

undeveloped nature and managed as a Country Park with a range of formal and informal opportunities. Consequently the site has been allocated in the current Local Plan Review as a recreation allocation. Proposals were originally set out in the Alver Valley Masterplan and these have been further developed in the Borough Council's Alver Valley Country Park Strategy (2014).

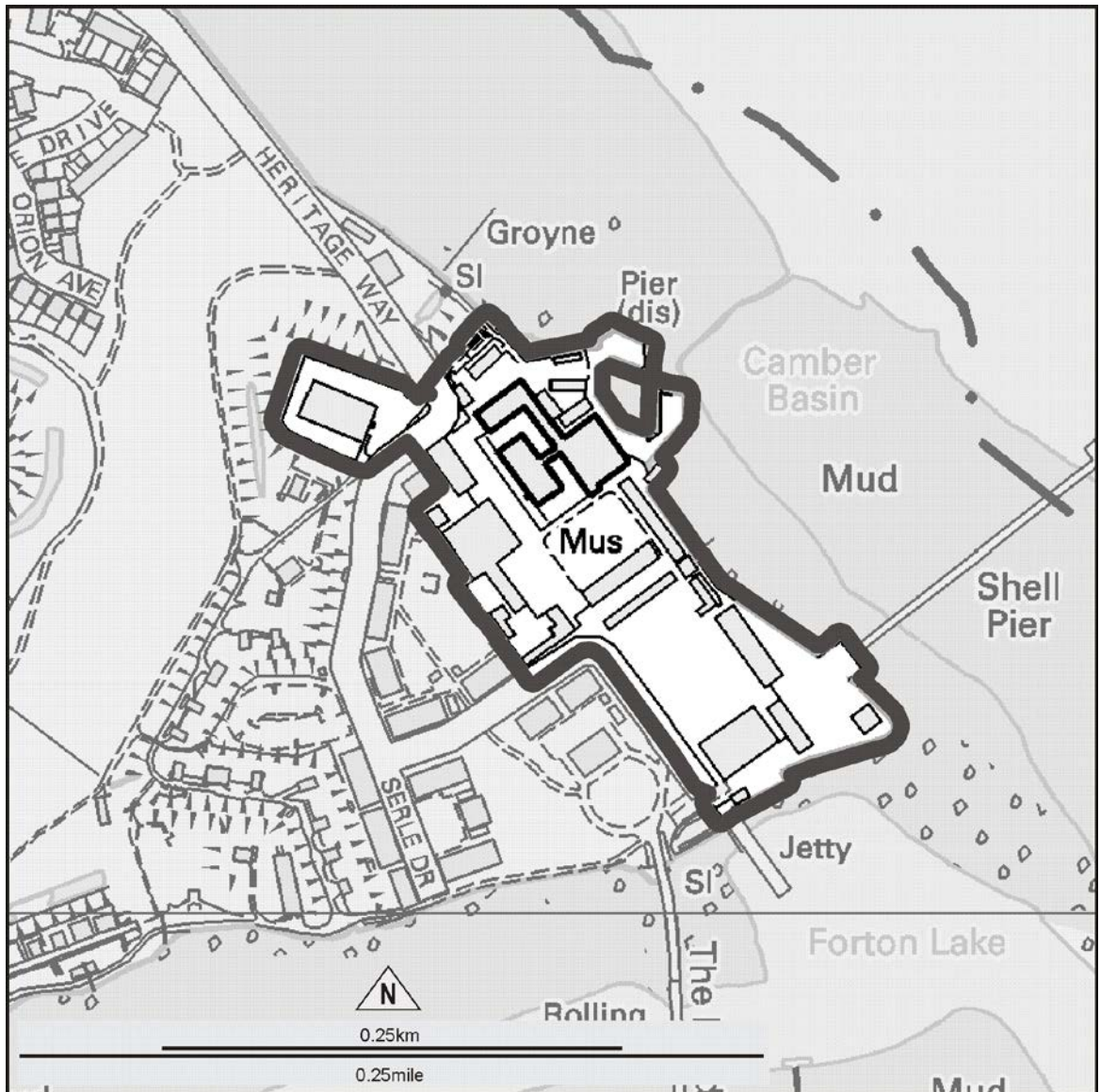
- 4.134 The Alver Valley Country Park will provide significant recreational opportunities for local residents and reducing the need for residents to travel out of the Borough to access similar facilities. The Alver Valley Country Park represents a significant contributor to delivering the South Hampshire green infrastructure network.
- 4.135 The Alver Valley is identified by PUSH as being of sub-regional significance representing a strategic element of the South Hampshire green infrastructure network.
- 4.136 The Borough Council intends to continue to manage existing and newly acquired areas within the Alver Valley by providing a range of informal and formal recreational opportunities for the public in appropriate locations compatible with the objectives of protecting wildlife and enhancing habitats. The proposed recreational uses include picnic areas, trails, footpaths, cycleways, bridleways and interpretative facilities. The provision of formal recreation facilities, primarily in the form of sports pitches is also important. This provision is required to meet expanding demand for sports activities in the locality. These uses are compatible in flood risk management terms and therefore it was considered that it was unnecessary to carry out a more detailed assessment.

Implications for the Publication Version of the Local Plan

- 4.137 The Alver Valley represents a major area of green infrastructure and has the potential to store significant floodwater thereby reducing flood risk elsewhere including residential areas. A new balancing pond has been created to reduce flood risk within the new Cherque Farm residential development and will be a recreational resource in the Alver Valley Country Park with the potential to enhance local biodiversity.
- 4.138 The Environment Agency are currently preparing a number of options for reducing flood risk in the Alver Valley. There are presently three broad options for consideration namely:
- extending the river along its historic alignment;
 - creating a two-way structure with a one way flap/control at Privett Road bridge; and
 - improving the current structure to function as a one way outfall.
- 4.139 Each option provides opportunities to secure a number of important environmental benefits

ALLOCATIONS OUTSIDE THE REGENERATION AREAS

PRIDDY'S HARD HERITAGE AREA



Background

- 4.138 This allocation includes the undeveloped area of the Priddy's Hard Heritage Area (2.89 ha) which has been designated for a mixture of uses and the Ramparts (3.1ha) which is proposed to form a public park. The site is within the Priddy's Hard Conservation Area and includes a number of Listed Buildings. The Ramparts are a Scheduled Ancient Monument.
- 4.139 The site has the potential for a further 100 dwellings and a range of commercial uses to complement the Explosion Museum and benefit from the Harbour side setting such as hotel/conferencing, food and drink outlets, small offices and craft workshops, and education and community uses.
- 4.140 A small part of the undeveloped site is located within Flood Zones 2 and 3 and therefore a site specific Flood Risk Assessment will be required.

Strategic Flood Risk Assessment for Priddy's Hard Heritage Area

4.141 The findings of the SFRA are set out below. The maps relating to the assessment can be found in Appendix 3.

4.142 **Q: *Is the potential allocation site in an area at low risk of flooding?***

A: The Environment Agency's latest flood zone maps for 2012 show Priddy's Hard Heritage Area located in Flood Zone 1, 2 and 3. It is proposed to allocate this area for mixed use including residential. When using the SFRA climate change mapping layer for 2115 significant parts of the site fall within flood zones 2 and 3. Therefore a site specific FRA will be required and it will be necessary to ensure that the potential increase for flood risk is fully assessed and the necessary mitigation and safety of the development on site is addressed throughout its lifetime.

4.143 **Q: *Is there an alternative potential allocation site in an area at low risk of flooding?***

A: Yes.
(i) Daedalus; and
(ii) Land at Rowner.

4.144 **Q: *Are these alternative sites less suitable taking into account other planning issues?***

A: The alternative sites considered are unsuitable for a number of reasons, these are set out below.

Daedalus

4.145 This site is capable of securing substantial employment opportunities for local residents and some housing. It is regarded as a key opportunity site within the Borough to provide economic led regeneration benefits. However, substantial levels of housing in excess of that promoted on the site may result in the reduction of securing local employment and other key community uses. In March 2012 outline planning applications submitted by SEEDA were approved by Fareham and Gosport Borough Council subject to the signing of a Section 106 agreement. This included consent for an employment-led mixed use site with almost 70,000 sq.m of employment floorspace, hotel, leisure and other commercial uses, and 200 dwellings. Further employment floorspace was granted consent in the Fareham part of the site.

Land at Rowner

4.146 Significant areas of land at Rowner have already been brought forward for regeneration. Planning permission was granted for a mixed-use development in April 2009. As part of this larger scheme, there is potential to accommodate a net gain of 200 residential units.

Consider original site: Priddy's Hard Heritage Area.

4.147 **Q: *Will the proposed development type(s) be acceptable in this Flood Zone?***

A: Acceptability of uses are likely to be reliant on the issues relating to site layout and design as well as appropriate mitigation measures being put in place including safe access to and from the site, appropriate flood warning and evacuation plans are put in place. Site layout will require residential uses to be located to the least vulnerable parts of the site and appropriate flood mitigation measures should be put in place. Design and construction of the

buildings to ensure they are flood resilient and resistant will be paramount in accordance with draft policy LP46.

Proposed Land – uses	NPPG vulnerability classification
Residential	More vulnerable
Community	More vulnerable
Leisure uses	Less vulnerable
Commercial	Less vulnerable

4.148 **Q: *Is the Exception Test satisfied?***

A: Yes see the section on Meeting the Exception Test on page 22.

4.149 **Q: *Are there any other potential allocation sites in the same flood risk zone?***

A: Yes.
 (i) Gosport Waterfront; and
 (ii) Haslar Peninsula.

4.150 **Q: *Consider other sites. Select best site(s) based on flood risk and other material planning considerations?***

A: Gosport Waterfront

4.151 The site provides a significant regeneration opportunity for the Council to capitalise on its unique waterfront location and opportunities to link the regeneration of this area to the adjacent Town Centre and surrounding areas. It has the potential to accommodate significant levels of development. The regeneration of the waterfront is a strategic priority of the Borough Council as set out in the Council's Corporate Plan. The inclusion of the Priddy's Hard Heritage Area allows for opportunities to expand the tourism potential of this site and enhance the regeneration of the Borough from Priddy's Hard to the Haslar Peninsula.

Haslar Peninsula

4.152 There are a number of planning constraints to the former hospital site including poor access to the peninsular. Within the Haslar peninsular, there is the Haslar Peninsula Conservation Area, Scheduled Ancient Monuments (SAMs) at Haslar Gunboat Yard and parts of Fort Blockhouse. In addition, the former hospital site also has a number of important historic buildings listed at Grades II and II*, and a historic Grade II Listed Park. The unique historic significance of the site and the Council's preferred option to see it retained for mixed-use, community health led development means that residential opportunities are likely to be limited.

4.153 There are a number of established employment uses on the Haslar peninsula through Fort Blockhouse and the Haslar Marine Technology Park as well as the medical services currently provided on the hospital site.

4.154 **Q: *Consideration of the site details and flood risk management requirements?***

A: The Borough Council's preferred option is for mixed use. Given its location, there are significant opportunities to develop tourism opportunities on site. The key issue for any site-specific FRA is likely to be safe access to and from the site should an extreme flood event occur and defences are breached.

Other Key Considerations

Undefended Flood hazard (1B) and (1C) Indicative areas benefiting from flood defences

- 4.155 The SFRA identifies large areas of 'low' flood hazard these are principally in areas of the site that currently fall within Flood Zone1. This is defined in the SFRA as areas where there may still be shallow flowing water or deep standing water. However this is interspersed with this are pockets of 'moderate' to 'very high risks' where there could be extreme danger with deep flowing fast water. The SFRA recommends that site specific FRAs for proposals within these areas should undertake a quantitative assessment of defence standards, defence failure scenarios and overland flood flow. The Eastern Solent Coastal Partnership are currently preparing the River Hamble to Portchester Coastal Flood and Erosion Risk Management Strategy this Strategy will provide much more specific and up to date detail about the condition and maintenance of flood defences in this area than the SFRA.
- 4.156 The Priddy's Hard Heritage Area benefits from protected frontages both through coastal defences and natural topography. The SFRA shows large areas around the site to be within a greater than a 1: 200 year standard of protection. However, the assessment at the SFRA level is based only on a comparison of crest level with extreme sea levels and does not take account of defence type, or age and condition of life expectancy of the defences or the potential for wave overtopping and therefore the Borough Council's SFRA recommends applicants undertaking more detailed assessments of defence standards should be undertaken as part of a site specific FRA.

Danger to people from breaching (1D)

- 4.157 This map set only provides a guide as to where further detailed breaching may occur and where detailed analysis may be required in site specific FRAs as part of assessing the residual risk posed by development. In general terms, the SFRA shows that a lot of the site would be at low risk (the area shown in green) where water inundation is likely to be shallow flowing water or some deep standing water this is shown in predominantly the area identified as Flood Zone 1. There are also pockets of land in those parts of the site identified as flood zone 2 and 3 areas where the potential hazards would be greater those areas shown in yellow (danger for some) and smaller pockets of some areas shown in orange and red where there are higher hazards with potential for fast flowing and deeper water. This information represents a precautionary approach and is there to assist developers in understanding what the residual risks may remain if they were to invest in defending an area to a 1:200 year (Flood Zone 3) or a 1:1000 year (Flood Zone 2) standard.

Other Sources of flooding (1F using the 1F series mapsets)

- 4.158 Set out below are other key flooding considerations in relation to this location that would need to be addressed as part of site-specific FRAs. The SFRA highlights potential issues that may need to be addressed through a site specific FRA.
- 4.159 **Wave energy (1F1):** The SFRA found there are no historical incidences of flooding caused by wave overtopping in this location and the site is exposed to 'low wave' energy. However due to its position fronting Portsmouth Harbour, a site-specific Flood Risk Assessment should still investigate this further.
- 4.160 **Groundwater Flooding (1F2):** The current Environment Agency maps on the PUSH SFRA website show this site falls within a 'minor' Groundwater

Vulnerability Zone. The SFRA does not show any historical incidences of groundwater flooding in this location. However the latest set of Environment Agency maps for ‘Areas Susceptible for Groundwater’ flooding show ‘superficial deposits’ of flooding in this location. Further advice on this can be sought from the Environment Agency.

- 4.161 The site has elements of low, medium and high permeability. There may be possibilities to incorporate SuDs measures in any proposed scheme and this should be considered in any site-specific FRA. The SFRA Final Report sets out the suitability of different types of SUDS within the Borough. This table is reproduced below:

Permeability	Indicative Suitability of SUDS Techniques
High permeability	Infiltration and Combined Systems
Moderate permeability	Infiltration and Combined Systems
Low permeability	Attenuation Systems

(Source: Table 3 Suitability of SuDS PUSH SFRA Final Report 2007)

- 4.162 **Impact of land use change on surface water run-off (1F3):** Detailed assessments of surface water run-off are normally undertaken at site specific level. Site specific FRAs should carefully consider the impact of surface water run-off and the appropriateness of SUDS to manage surface water run-off. The SFRA showed a moderate impact of land use change on surface water run-off for the Priddy’s Hard Heritage Area. Since the SFRA was completed the Environment Agency have produced more detailed maps relating to surface water run-off and these show that there are small parts of the site that are particularly subject to areas of surface water flooding. This will need further investigation as part of a site specific FRA with appropriate mitigation put in place.
- 4.163 **Potential sources of overland flow (1F4):** The SFRA identifies development across the whole site as having a ‘high’ to ‘very high’ potential to generate overland flow due to the high potential of run off from urban land uses. However it should be noted that the assessment carried out for the SFRA was undertaken at a strategic level. Therefore it may be appropriate for a site specific FRA to undertake further studies. FRAs for sites that are found to be within or in the vicinity of these areas, particularly if the local topography places the site at a lower elevation than the surrounding land (hence downstream at source) should consider the impacts and management of flooding due to overland flow.
- 4.164 **Surface Water Sewer Flooding (1F5):** The SFRA has not recorded any historical incidents of surface water sewer flooding in this area.
- 4.165 **Climate change implications for 2115:** The Environment Agency’s latest flood zone maps for 2012 show Priddy’s Hard Heritage Area located in Flood Zone 1, 2 and 3. It is proposed to allocate this area for mixed use including residential. When using the SFRA climate change mapping layer for 2115 significant parts of the site fall within flood zones 2 and 3. Therefore a site specific FRA will be required and it will be necessary to ensure that the potential increase for flood risk is fully assessed and the necessary mitigation and safety of the development on site is addressed throughout its lifetime.

Existing defence assets and likely future investment

- 4.166 The information shown on the SFRA website in relation to present day defence crest levels should be seen as a starting point for site specific FRAs. More detailed information on the age, condition and residual life of the coastal assets in this location should be sought from the Eastern Solent Coastal Partnership.
- 4.167 The SFRA shows the present day crest/tide level for the site in two parts. For the north eastern part of the site the crest/tide level 200-1000 year standard whilst at the southern part of the site adjoining Forton Lake it is 1000 year standard. This mapset represents a comparison of the crest level with extreme sea levels and does not take account of type, condition or design.
- 4.168 On the basis of the information shown, the level of investment required based on present day (i.e. 2007 when the SFRA was carried out) standards to achieve a crest/tide level of protection of 1:200 year is 'none'. However, this needs to be treated with caution and the Borough Council would expect a site specific FRA to investigate this issue and consult the Eastern Solent Coastal Partnership. This point is reinforced when looking at the map set relating to the 2115 Crest/Tide level which provides an assessment of indicative defence crest levels of existing defences taking into account climate change information to 2115. This shows a significant reduction to less than 20 years.

Conclusions

- 4.169 Development proposals will need to be accompanied with a site-specific flood risk assessment to demonstrate how the proposal deals with the small part of the undeveloped site which is within Flood Zones 2 and 3. It will be necessary to ensure the location of vulnerable use such as residential uses is in accordance with the NPPF and associated guidance.
- 4.170 Flood risk matters to consider include an assessment of defence standards, defence failure scenarios and overland flood flow to ensure the necessary mitigation and safety of the development is addressed throughout its lifetime. The issue of surface water runoff and the appropriateness of sustainable drainage systems will also need to be addressed.
- 4.171 Measures that could be considered which have been used in other parts of the Priddy's Hard development include raising the existing harbour wall to 3.9m above Ordnance Datum (AOD) with a 1metre high splashwall and a collection channel. In addition a sewer to store storm water and the floor levels of the residential blocks to have a minimum level of 4 metres AOD. Any applicant will need to seek further advice from the Environment Agency.

Implications for the Publication version of the Local Plan

- 4.172 The Priddy's Hard Heritage Area offers excellent opportunities to combine high quality mixed use development taking advantage of a superb waterfront location and protecting unique local historical assets.
- 4.173 Development proposals will need to be accompanied with a site-specific flood risk assessment to demonstrate how the proposal deals with the small part of the undeveloped site which is within floodzones 2 and 3. It will be necessary to

ensure the location of vulnerable use such as residential uses is in accordance with the NPPF and associated guidance.

5.0 INFRASTRUCTURE

5.1 Appendix C of the SFRA sets out Local Authority Guidance notes. Key findings for Gosport in relation to existing defence assets and anticipated future investment needs is set out below:

- The low lying nature of the Borough indicates predicted increases of sea level will be an increasing key issue in considering future patterns of development.
- There are mixed standards of protection around the town centre and this conclusion is supported by the findings of the Borough Council's Town Centre Strategy.
- Coastal defences in Gosport will become increasingly susceptible to climate change, with 100 years of predicted sea level rise most of the defences would fail at current levels (except frontages from Gilkicker point to Portsmouth Harbour and Priddy's Hard to Frater Gate).

5.2 To sustain future development patterns in Gosport, investment which supports a Partnership Funding approach to delivering flood and coastal erosion risk management infrastructure will be required. The draft local plan recognises that new development may need a number of different infrastructure requirements to support it this also may include the provision of flood risk management infrastructure. Where this is required, the approach to securing this form of infrastructure is developed through draft policies LP2: Infrastructure and LP46: Flood Risk and Coastal Erosion and supported by the Borough Council's Infrastructure Assessment Report and Infrastructure Assessment and Delivery Plan (June 2014). Work is still on-going to identify the levels of flood risk management infrastructure necessary and the potential delivery mechanisms available to implement such measures. Traditionally, flood defences measures have been provided in Gosport through Defra/EA approved schemes. However, the Borough Council is also considering the role that developer contributions could play as a key contributor towards the provision of flood risk management measures.

5.3 The Eastern Solent Coastal Partnership are preparing the Hamble to Portchester Flood and Coastal Erosion Risk Management Strategy covering the entire length of the Gosport coastline. This strategy will take forward the high level management policies identified in the North Solent SMP and will assist in informing future levels of flood management infrastructure required in the Borough.

5.4 Table 6 below summarises broad indication of currently known flood protection/mitigation issues identified for each allocation in the SFRA assessment.

Table 6: Flood Protection

Gosport Waterfront and Gosport Town Centre	
Flood protection/mitigation issues	Flood defences built to appropriate standards will be required to safeguard the site as well as other measures that are highlighted from the site flood risk assessment including appropriate evacuation measures.
Daedalus	
Flood protection/mitigation issues	An on-site flood risk assessment will be required. It may be appropriate to include a SuDs scheme. The marina option will require significant consideration regarding flood defences and mitigation measures.
Haslar Peninsula	
Flood protection/mitigation issues	This is a significant issue. Further research is required to understand the flood risk issues relating to the Peninsula and what improvements are required.
Rowner	
Flood protection/mitigation issues	The Rowner Renewal Project includes a Sustainable Drainage System (SuDS) scheme. Further SuDS schemes will need to be considered as part of other areas within Rowner to be developed in order to mitigate against surface water flooding and contribute to the Borough's local green infrastructure. This will need to be accompanied by a management and maintenance plan for the lifetime of the development.
Alver Valley	
Flood protection/mitigation issues	None identified.
Priddy's Hard Heritage Area	
Flood protection/mitigation issues	Flood risk matters to consider include an assessment of defence standards, defence failure scenarios and overland flood flow to ensure the necessary mitigation and safety of the development is addressed throughout its lifetime. The issue of surface water runoff and the appropriateness of sustainable drainage systems will also need to be addressed. Measures that could be considered which have been used in other parts of the Priddy's Hard development include raising the existing harbour wall to 3.9m above Ordnance Datum (AOD) with a 1metre high splashwall and a collection channel. In addition a sewer to store storm

	water and the floor levels of the residential blocks to have a minimum level of 4 metres AOD. Any applicant will need to seek further advice from the Environment Agency.
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Gosport Borough Council is committed to equal opportunities for all.

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in Braille or in another language, please ask.**

Published: June 2014

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