

Hartlepool Local Planning Framework

Local Plan

Hartlepool Flood Risk Sequential Test



July 2017



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1.0 Introduction

1.1 This report sets out the Sequential Test and Exception Test of flood risk in the Borough of Hartlepool specifically focussed on the proposed development sites that have been allocated in the emerging Local Plan.

2.0 Overview of flood risk within Hartlepool

2.1 **Fluvial flooding:** The Environment Agency's Flood Map for Planning shows that the majority of fluvial flood risk comes from the Burn Valley Beck and The Slake. The areas at risk are predominantly within Hartlepool town. The Flood Map for Planning is updated at quarterly intervals by the EA, as and when new modelling data becomes available. The reader should therefore refer to the online version of the Flood Map for Planning to check whether the flood zones may have been updated since November 2016.

2.2 **Surface Water flooding:** The 2017 Level 1 SFRA states that surface water flooding is prevalent across the borough, particularly in the eastern part along the urbanised coastal plain. The higher, more rural ground to the west of the district is less at risk, although in settlements such as Hart and Dalton Piercy the risk is higher.

2.3 **Critical Drainage Areas (CDA):** A critical drainage area is 'an area "within FZ1 which has critical drainage areas (as notified to the local planning authority by the Environment Agency)". The Environment Agency has not formally designated any CDAs within the Hartlepool District. The 2010 Level 1 SFRA proposed a number of CDAs. The 2010 Level 2 SFRA narrowed down the number of CDAs to four, of which three were confirmed by HBC as part of the SFRA. These are at The Slake/Middle Warren Watercourse, Tunstall Farm Beck at West Park and The Stell. The fourth, at Tunstall Farm Beck near Stranton, was confirmed by HBC following further investigation. For clarity, the CDAs cover:

- The Stell near Seaton (Seaton Ward, Foggy Furze Ward, and Fens and Rossmere Ward)
- Burn Valley Beck area around Stranton (Headland and Harbour Ward, Burn Valley Ward (negligible) and Seaton Ward)
- Tunstall Farm Beck area around West park (Rural West Ward)
- Middle Warren Watercourse Area (De Bruce Ward, Headland and Harbour Ward, and Jesmond Ward)

3.0 National Policy

3.1 Nationally flooding has become an increasingly important subject as there has been a rise in the number of flood events. The National Planning Policy

Framework (NPPF) sets out the national policy for new development and flood risk. When producing development plans, consideration needs to be given to present and future flood risk. The National Planning Practice Guidance (PPG) provides detailed guidance as to how national policy should be implemented.

The Sequential Test

- 3.2 The NPPF states that inappropriate development in areas at risk from flooding should be avoided by directing development away from areas at highest risk. A sequential, risk-based approach to the location of development should be applied in the preparation of Local Plans (NPPF paragraph 100). The aim is to minimise the risk from flooding. Development should not be allocated if there are reasonably available sites appropriate for the proposed allocation in areas with a lower probability of flooding (NPPF paragraph 101).

The Exception Test

- 3.3 The application of the Exception Test is set out at NPPF paragraph 102. The Exception Test is applicable 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. For the Exception Test to be passed:

- **The first part of the Test:** 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 (the first part of the Test); and
- **The second part of the Test:** A site-specific flood risk assessment must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall (the second part of the Test).

- 3.4 Both elements of the test will have to be passed for development to be allocated or permitted.

The Sustainability Appraisal

- 3.5 The National Planning Practice Guidance states 'A local planning authority should demonstrate through evidence that it has considered a range of options in the site allocation process, using the Strategic Flood Risk Assessment to apply the Sequential Test and the Exception Test where necessary. This can be undertaken directly or, ideally, as part of the sustainability appraisal. Where other sustainability criteria outweigh flood risk

issues, the decision making process should be transparent with reasoned justifications for any decision to allocate land in areas at high flood risk in the sustainability appraisal report.'

3.6 The Sustainability Appraisal for the emerging Hartlepool Local Plan included the following sustainability objective: *Climate Change: To address the causes of climate change and minimise emissions of greenhouse gasses*. The following appraisal criteria were included for this sustainability objective:

- Will it assist in mitigation and/or adaption to climate change?
- Will it increase emphasis on the issue of climate change and global warming effects, such as rising sea levels and the impact of additional development?
- Will it ensure that flood management takes a sustainable approach?
- Will it reduce the risk of flooding?

3.7 Each proposed development allocation was assessed in relation to these criteria.

4.0 Local context and the emerging Hartlepool Local Plan

4.1 The emerging Hartlepool Local Plan sets out a number of policies that are relevant to this report. Policy LS1: Locational Strategy is of particular relevance. The policy sets out the distributional strategy for achieving growth concentrated in areas adjoining the existing built up area and adjacent to areas of strong economic growth. Housing development will be located within the following locations:

- Suitable sites in the urban area (Policy HSG3)
 - A south west urban extension (1250 dwellings) (Policy HSG4)
 - An urban extension at High Tunstall (1200 dwellings) (Policy HSG5)
 - Urban Extension at Quarry Farm (220 dwellings) (Policy Hsg5a)
 - 732 dwellings at Wynyard (732 dwellings) (Policy HSG6)
 - Extensions of the villages of Hart and Elwick (policies HSG7 and HSG8).
- Key locations for leisure and tourism developments are:
 - The Town Centre
 - The Marina
 - Seaton Carew
 - The Headland

- The hierarchy for retail and commercial development is defined as follows:
 - The Town Centre (Policy RC2), then;
 - Edge of Town Centre Areas (policies RC4 to RC11), or
 - Retail and Leisure Parks (policies RC12 to RC15), then;
 - Local Centres (Policy RC16)
- The policy also identifies land for employment development including Wynyard Business Park (Policy EMP1), Queens Meadow (Policy EMP2), existing industrial areas for general employment use (Policy EMP3), specialist industrial sites (Policy EMP4), a new nuclear power station (EMP5) and underground storage (Policy EMP6).
- Policy EMP4 acknowledges that there are a number of industrial developments and uses which by nature of the processes and materials they use, associated emissions and/or their infrastructure needs have particular locational requirements.
- Policy EMP5: Safeguarded Land new Nuclear Power Station, acknowledges that the National Policy Statement for Power Generation identified land in Hartlepool as one of 10 sites in England and Wales suitable for the deployment of a new power station by the end of 2025.
- Policy EMP6: acknowledges that there is an area which has been used in the past for the extraction of brine and following which a number of underground cavities remain which have the potential to be used for underground storage.
- The Local Plan also includes two policies of particular relevance to flood risk mitigation, the general approach of which is to locate development in areas of low flood risk wherever possible and to ensure that development is flood risk resilient. These are:
 - Policy CC1: Minimising and Adapting to Climate Change
 - Policy CC2: Reducing and Mitigating Flood Risk

5.0 Evidence base for the Sequential Test

The Hartlepool Strategic Flood Risk Assessment 2017

- 5.1 Local Plans should be supported by a Strategic Flood Risk Assessment, which should be prepared in consultation with the Environment Agency. The previous Hartlepool SFRA was published in 2010. To support the emerging Local Plan, JBA Consulting were commissioned to produce an updated Hartlepool Level 1 SFRA in order to reflect new or updated flood risk information including the climate change allowances and this was published in March 2017.

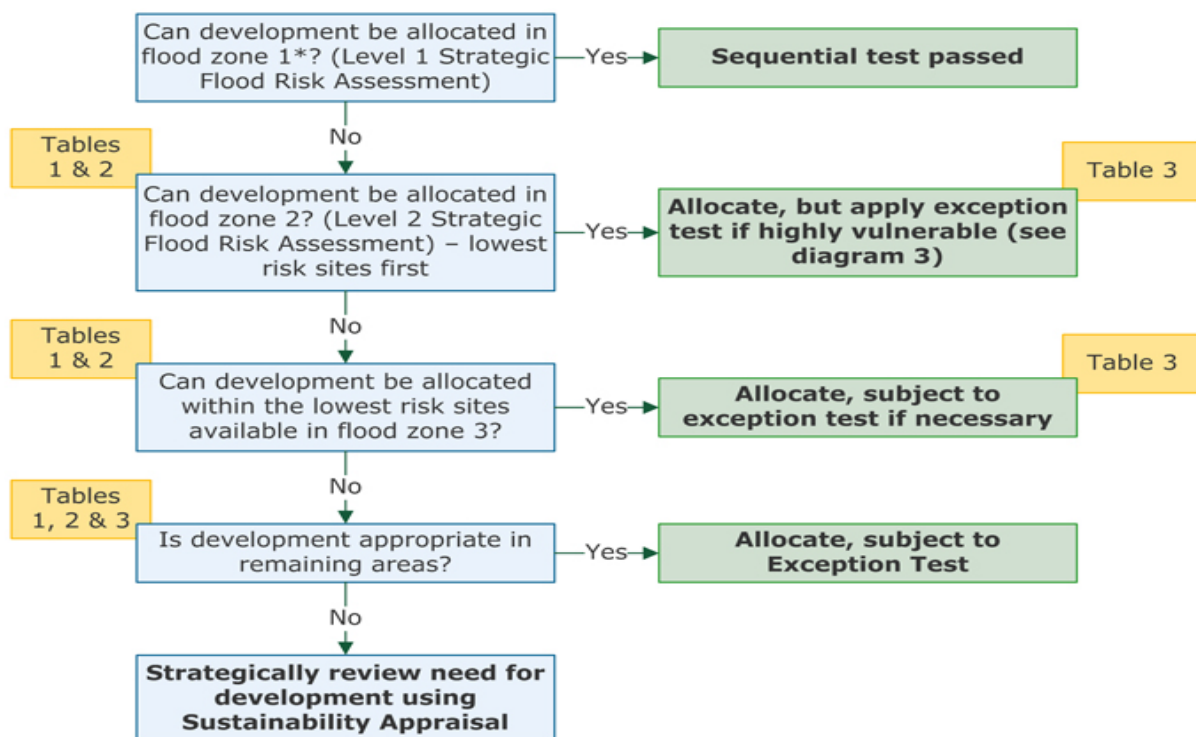
5.2 The information contained in the Level 1 SFRA was used by the local planning authority (LPA) to determine that the Exception test was required for 13 sites and 2 areas. In order to provide the technical information necessary for the LPA to determine whether the second part of the Exception Test had been passed, JBA Consulting were commissioned to undertake site specific flood risk assessments which set out the site specific information illustrating the variation of flooding and likely performance of flood risk management infrastructure necessary to ensure that development would be safe for its lifetime without increased flood risk and where possible, will reduce overall flood risk. The Level 2 SFRA - Site Screening Report was completed in July 2017.

The Hartlepool Flood Risk Management Strategy 2016

5.3 The flood strategy sets out how Hartlepool Borough Council as the Lead Local Flood authority is responding to local flood risk alongside other Risk Management Authorities.

6.0 The Sequential Test Methodology

6.1 The application of the Sequential Test in this report has been undertaken to broadly conform to the approach in the NPPG, drawing principally on the evidence provided by the Level 1 SFRA. The NPPG provides a summary of the application of the Sequential Test in a flow chart and this is set out below.



6.2 The NPPG sets out five levels of vulnerability to flooding in relation to the proposed development type (see Appendix 2). A summary of the levels of vulnerability and the proposed development type that is of particular relevance in the context of this Sequential Test Report is set out below. Table 1 below cross-references the vulnerability classification to the application of the Sequential Test by showing when the Exception Test is required.

- Essential Infrastructure includes essential utility infrastructure which has to be located in a flood risk area for operational reasons.
- Highly vulnerable includes police and ambulance stations.
- More vulnerable includes hospitals, dwelling houses and nightclubs
- Less vulnerable includes shops, service industries restaurants, cafes and offices.
- Water-compatible development includes docks, marinas and wharves.

6.3 Table 1 below is a summary of the flood risk vulnerability classification which is set out in the NPPG.

Table 1: Flood Risk Vulnerability Classification

Flood Zones	Flood risk vulnerability classification.				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	√	√	√	√	√
Zone 2	√	Exception Test required	√	√	√
Zone 3a	Exception Test required	✘	Exception Test required	√	√
Zone 3b	Exception Test required	✘	✘	✘	√

√ Development is appropriate

✘ Development should not be permitted

6.4 In determining which flood risk vulnerability classification is applicable to each site, the LPA has utilised the local knowledge of the Borough Council's Planning Policy, Engineering and Economic Development teams and has liaised with the Environment Agency and JBA Consulting. This has been particularly relevant in the context of the flood risk vulnerability classification

and the economic development policies. Where there is an existing industrial process or storage facility that required hazardous substances consent that does not of itself result in a 'highly vulnerable' classification as it is not the purpose of the Sequential Test to re-screen sites that have already been through the planning application and relevant environmental permit processes. However, if a draft policy specifically permits 'potentially polluting and hazardous industrial development' then the 'highly vulnerable' classification is also applicable unless there is a demonstrable need to locate such installations in high risk flood areas, in which case 'essential infrastructure' is applicable (see Appendix 2:NPPG flood risk vulnerability classification).

- 6.5 Paragraph 100 of the NPPF states that local planning authorities should take advice from the Environment Agency and other relevant flood risk management bodies such as lead local flood authorities and internal drainage boards. The Environment Agency and Northumbrian Water provided comments on the draft Level 1 SFRA. The Environment Agency has been consulted during the application of the Sequential Test including commenting on the advice from JBA Consulting as to which sites require the Exception Test. The Environment Agency has also agreed the final draft of this report. The lead local flood authority is Hartlepool Borough Council. The Borough Council's Principal Engineer has also been consulted on the findings of the draft Level 1 SFRA and has provided advice on the application of the Sequential Test.

Strategic recommendations

- 6.6 The Level 1 SFRA states that the following strategic recommendations may apply to a site following the application of the Sequential Test by the LPA:
- Strategic Recommendation A - consider withdrawing the site based on significant level of fluvial or surface water flood risk;
 - Strategic Recommendation B - Exception Test required if site passes Sequential Test;
 - Strategic Recommendation C - consider site layout and design around the identified flood risk if site passes Sequential Test;
 - Strategic Recommendation D - site-specific FRA required; and
 - Strategic Recommendation E - site permitted on flood risk grounds due to little perceived risk, subject to consultation with the local planning authority / lead local flood authority.
- 6.7 The Level 1 SFRA advised that Strategic recommendation B applies to sites where the following criterion is true:
- 10% or greater of any residential site, mixed use site entailing residential, or essential infrastructure (nuclear power station) site that is

within Flood Zone 3a. Water-compatible and less vulnerable uses of land do not require the Exception Test if in Flood Zone 3a.

- 10% or greater of any industrial site that may contain hazardous substances is within Flood Zone 3a

- 6.8 The LPA consulted with the Environment Agency regarding this approach. The Environment Agency responded by stating that they wish to raise 'significant concerns' that 'the 10% criteria-which is to apply the Exception Test only where 10% or more of a site is in FZ3a for certain development types- is not informed by the NPPF or PPG.' The Environment Agency subsequently further clarified their provision as follows: 'We consider that an Exception Test should be undertaken for sites that have less than 10% of their area located in flood zone 3a (with the exception of water compatible development and less vulnerable development) and therefore, included in the Level 2 SFRA assessment. We wish to take a pragmatic approach for sites which have less than 1% of their total area in flood zone 3a and therefore, do not require an exception test to be undertaken for those sites.'
- 6.9 The LPA is committed to working in partnership with the Environment Agency when determining how to apply the Sequential Test and Exception Test. Therefore the approach has been modified from that recommended by JBA Consulting to one which applies a threshold less than 1% of the site area in flood zone 3a threshold for the Exception Test not to be required.

How the search area has been defined

- 6.10 Guidance from the Environment Agency on the application of the Sequential Test states 'Identify the geographical area of search over which the test is to be applied - this will usually be over the whole of the Local Planning Authority (LPA) area but may be reduced where justified by the functional requirements of the development or relevant objectives in the Local Plan.' This section details how the search area has been identified for the sites in the emerging Local Plan.

The Hospital site

- 6.11 The Borough Council has liaised closely with North Tees and Hartlepool NHS Foundation Trust and with Stockton-on-Tees Borough Council regarding the provision of hospital-based and other health services. Land at Wynyard Park was formerly identified as the location of a new hospital which would replace University Hospital of Hartlepool and University Hospital of North Tees, Stockton. However, this is no longer regarded as financially deliverable. The location of hospital services is a subject of great sensitivity for the populations of both boroughs and in the absence of a financially deliverable project for a new hospital which would serve both populations, there is strong public and political support within Hartlepool for the retention of the existing University

Hospital of Hartlepool site. No other location is financially deliverable for the provision of these services for the foreseeable future.

- 6.12 The search area for alternative sites to urban housing sites at risk from flooding is the main conurbation of Hartlepool. The search area for urban extension housing sites is the area adjacent to the existing limits to development (as defined in the Hartlepool 2006 Local Plan) of the main conurbation of Hartlepool.
- 6.13 The Employment Land Review did not suggest any new sites and the characteristics of the employment land requirements of the Borough, with the particular emphasis on industries that are potentially polluting and/or hazardous, do not support locations outside of the present employment land portfolio which is concentrated in the south of the Borough and has been a long established area for such locations. The current portfolio of allocated employment land has therefore been defined as the search area for employment sites.
- 6.14 The search area has been extended for the underground storage allocation. The only other potential location for an underground storage site is the former ICI anhydrite mine at the Headland. However, this is located in close proximity to a residential area and the impact on residential amenity of allocating this site for underground storage would be unacceptable.
- 6.15 No alternative locations for retail and commercial centres have been identified or suggested through the Local Plan process. Opportunities for tourism and leisure allocations are largely determined by the characteristics of the tourism industry within the Borough.

7.0 The Sequential Test Results

Taking account of the risk of flooding from other sources of flooding

- 7.1 The principal aim of the Sequential Test is to avoid locating development in high and medium risk flood zones (see Appendix 1 for flood zone classification). However, the NPPG states that the Sequential Test should also aim to guide development away from other areas affected by other sources of flooding where possible. For example, a site that is located entirely within FZ1 may be vulnerable to surface water flooding. Hartlepool has a geology of underlying clay soil and urban development both of which can reduce permeability and increase both the speed level of surface water run-off. This can result in localised surface water flooding.
- 7.2 The Level 1 SFRA included an assessment of all sites as to the proportion at high, medium and low risk from surface water flooding (see Appendix 3: Risk

from surface water flooding). The Borough Council's Principal Engineer has reviewed these assessments and the evidence available from the Flood Risk Management Strategy. He noted that draft allocation HSG5: High Tunstall Strategic Housing Site (approximately 1200 dwellings) is directly affected by the Critical Drainage Area - Tunstall Farm Beck area around West Park. His advice is that risk from surface water flooding to this site can be managed through larger storage and greater attenuation. He also noted that there have been planning permissions for residential development which have recently been granted in this area with satisfactory mitigation being agreed. In relation to the assessments in the Level 1 SFRA he identified the following particular site-specific issues.

- The need to restrict run off into the Tunstall Farm watercourse to a rate not exceeding Greenfield.
- The requirement to strategically place attenuation around the High Tunstall Strategic Housing Site to ensure water quality can be improved without the need for mechanical intervention.
- The use of designated open space areas as water storage facilities is particularly relevant in the context of the High Tunstall Strategic Housing Site.

7.3 In summary, the Principal Engineer has concluded that there are no risks from surface water flooding of such severity as to preclude the allocation of any of the sites subject to appropriate surface water management and/or Sustainable Drainage Systems are to be incorporated within any development proposals in accordance with Policy CC2: Reducing and Mitigating Flood Risk in the emerging Local Plan.

Can development be allocated in flood zone 1?

7.4 The following sources were used to identify land available for development:

- 2015 Strategic Housing Land Availability Assessment (SHLAA)
- 2014 Employment Land Review (ELR)

7.5 Consideration of the risk from flooding formed part of the assessment process for the SHLAA. For example, it was agreed by the SHLAA steering group that larger greenfield sites should be reduced to form suitable sized housing areas where necessary. Areas of Flood Zone 3 were taken out and the relevant sites reduced to reflect this. The SHLAA showed that it is possible to meet a significant proportion of the Borough's housing needs on sites that are completely within FZ1. However, it also showed that some potential housing sites interface with areas with a high probability of flooding.

- 7.6 The Employment Land Review carried forward sites from the 2006 Local Plan but took flood risk into account as some of these sites included areas of undeveloped land or land which could potentially be redeveloped that are at risk from flooding. For example, the assessment for Graythorpe Industrial Estate states 'If any further buildings are required, these should be directed to those areas of land on the site that are not identified as being at risk of flooding.'
- 7.7 Sites identified for retail and commercial development were the subject of the 2014 Retail Study but this carried forward sites from the 2006 Local Plan as retail centres were already established and so did not specifically reference flood risk.
- 7.8 The preliminary screening exercise showed that it is not possible to fulfil the vision and objectives of the emerging Local Plan exclusively on land within FZ1.
- 7.9 Appendix 4 lists all of the development sites / areas that the LPA proposes to allocate in the emerging Local Plan. The following sites are identified as being entirely within FZ 1 and therefore do not require the Sequential Test.

Sites entirely within FZ1

Housing

- HSG3i South of John Howe Gardens
- HSG3ii Car and Hopps
- HSG3iii Briarfields
- HSG5 High Tunstall
- HSG5a Quarry Farm
- HSG6a North Pentagon
- HSG6b Wynyard Park North
- HSG6c Wynyard Park South
- HSG7 Elwick Village
- HSG8a Nine Acres
- HSG8b Glebe Farm

Employment

- EMP1 Prestige Employment Site Wynyard Business Park

- EMP2 Queens Meadow Business Park
- EMP3c Usworth Road / Park View West
- EMP3f Tofts Farm East / Hunter House
- EMP3g Tofts Farm West
- EMP4e North Graythorp

Retail and Commercial

- RC1 Retail Hierarchy (Primary Shopping Area)
- RC4 Avenue Road / Raby Road
- RC8: Mill House
- RC9: Park Road
- RC10: West Victoria
- RC13: West of Marina Retail and Leisure Park
- RC15: Tees Bay Retail and Leisure Park
- RC16: Local Centres (all except Nothgate/Union Street Local Centre and Seaton Front Local Centre)

Could the development proposals for the following allocated areas/sites in flood zone 2 and 3 alternatively be located in Flood Zone 1?

7.10 Appendix 4 lists all of the development sites area that the LPA proposes to allocate in the emerging Local Plan. The following sites are located in flood zones 2 and/or 3 in whole or part.

- INF3: University Hospital of Hartlepool
- HSG3: Coronation Drive
- HSG4: The South West Extension Strategic Housing Site
- EMP3a: Oaksway
- EMP3b: Longhill / Sandgate
- EMP3e: Brenda Road
- EMP3h: Graythorp Industrial Estate
- EMP3i: Zinc Works Road
- EMP4a: Hartlepool Port

- EMP4b: West of Seaton Channel
- EMP4c:Phillips Tank Farm
- EMP4d:South Works
- EMP4g: Able Seaton Port
- EMP5: Nuclear Power Station
- EMP6: Underground Storage
- RC2:The Town Centre
- RC3: Innovation and Skills Quarter
- RC5: The Brewery and Stranton Edge of Town Centre Area
- RC6: East of Stranton Edge of Town Centre Area
- RC7: Lynn Street Edge of Town Centre Area
- RC11: York Road South Edge of Town Centre Area
- RC12: The Marina Retail and Leisure Park
- RC14: Trincomalee Wharf Retail and Leisure Park
- RC16: Northgate/Union Street Local Centre
- RC16: Seaton Front Local Centre
- RC17: Late Night Uses Area
- LT1: Leisure and Tourism
- LT2: Tourism Development in the Marina
- LT3: Development of Seaton Carew

Infrastructure

7.11 The following infrastructure site is identified as having 25.3% of land within FZ3a.

- INF3: University Hospital of Hartlepool

7.12 The hospital is already established and has been operational for several decades. The purpose of Policy INF3 is to safeguard the site for health and related facilities. As detailed at paragraph 6.11, the current location of the hospital has public and political support and a project to re-locate hospital services to Wynyard has not proved deliverable due to financial constraints. Therefore there is no alternative location for the provision of these services

which is financially deliverable for the foreseeable future. Hospitals are classified as 'more vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The LPA will amend the policy so that 'more vulnerable' development can be located in FZ1 or FZ2 only.

Housing

7.13 The following housing site is identified as having 1.29% of land within FZ2.

- HSG3: Coronation Drive

7.14 Housing is classified as 'more vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. However, 1.29% is a marginal amount of land and the Exception Test is not considered to be necessary as detailed in Table 3: Flood risk vulnerability and flood zone 'compatibility'.

7.15 The following housing site is identified as having 5.5% of land within FZ3b.

- HSG4: The South West Extension Strategic Housing Site

7.16 Housing is classified as 'more vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. However, the site benefits from a resolution to grant planning permission subject to the signing of a Section 106 Agreement. No residential properties will be built in the area with a high probability of flooding. The Environment Agency was a consultee for the planning application and agreed the approach to flood risk mitigation. The Exception Test is not considered to be necessary.

Employment

7.17 All employment sites are in an existing employment areas. The LPA considers that the potential environmental impacts of delivering the Borough's employment land requirements are minimised by carrying existing employment allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified.

7.18 The following employment sites are 'less vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance.

- EMP3a: Oaksway
- EMP3b: Longhill / Sandgate

- EMP3e: Brenda Road
 - EMP3h: Graythorp Industrial Estate
 - EMP3i: Zinc Works Road
- 7.19 The designation 'less vulnerable' has been confirmed by the Borough Council's Planning Policy and Economic Regeneration teams based on local knowledge of the uses currently on the sites and what would be permissible in the context of the relevant draft employment allocation policies.
- 7.20 Sites with the designation 'less vulnerable' or 'water compatible' are not subject to the Exception Test. The following site is 'water compatible' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance.
- EMP4a: Hartlepool Port
- 7.21 The following site is 'highly vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance.
- EMP4d: South Works
- 7.22 The proportion of EMP4d South Works that is within FZ3a is 0.19%. The Environment Agency have agreed with HBC that sites which have 1% or less of their area within flood zones 2 or 3 do not need to be subject to the Exception Test.
- 7.23 The other sites listed above exceeded the 1% threshold. The LPA considers that there are wider strategic planning objectives which support the allocation of these sites. They need to be subjected to the Exception Test to determine whether they can be developed safely and whether there are wider sustainability benefits.
- 7.24 The following sites are 'essential infrastructure' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance.
- EMP4b: West of Seaton Channel
 - EMP4c: Phillips Tank Farm
 - EMP4g: Able Seaton Port
 - EMP5: Nuclear Power Station
 - EMP6: Underground Storage

7.25 The LPA considers that there are wider strategic planning objectives which support the allocation of these sites. They need to be subjected to the Exception Test to determine whether they can be developed safely and whether there are wider sustainability benefits.

7.26 Although Able Seaton Port could be categorised as 'water compatible', the LPA considers that 'essential infrastructure' is more appropriate for the following reasons;

- The allocation is for recycling and resource recovery. In the context of Able Seaton Port these activities are intrinsically associated with hazardous materials. For example, the Port has contracts to dismantle oil rigs.
- Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance states that where there is a demonstrable need to locate installations requiring hazardous substances consent in locations that require coastal or water-side locations, in these instances the facilities should be classed as 'essential infrastructure'.

Retail and Commercial

7.27 All retail and commercial sites are in an existing retail and commercial area. The LPA considers that the potential environmental impacts of delivering the Borough's retail and commercial land requirements are minimised by carrying existing retail and commercial allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified. The following retail and commercial sites are more vulnerable according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance and have more than 1% of their site area within FZ3.

- RC2: The Town Centre
- RC5: The Brewery and Stranton Edge of Town Centre Area
- RC6: East of Stranton Edge of Town Centre Area
- RC7: Lynn Street Edge of Town Centre Area
- RC11: York Road South Edge of Town Centre Area
- RC12: The Marina Retail and Leisure Park
- RC14: Trincomalee Wharf Retail and Leisure Park
- RC16: Northgate/Union Street Local Centre
- RC16: Seaton Front Local Centre

- RC17: Late Night Uses Area

7.27 Policy RC16 covers 32 separate local centres, the majority of which are wholly within FZ1. However, Northgate/Union Street Local Centre and Seaton Front Local Centre both have more than 1% of their area within FZ3.

7.28 The LPA considers that there are wider strategic planning objectives which support the allocation of policies RC2, RC5, RC7, RC11, RC12, RC14, RC16 and RC17. They need to be subjected to the Exception Test to determine whether they can be developed safely and whether there are wider sustainability benefits.

Leisure and Tourism

7.29 The following leisure and tourism sites are more vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance and have more than 1% of their site area within FZ3.

- LT1: Leisure and Tourism
- LT2: Tourism Development in the Marina
- LT3: Development of Seaton Carew

7.29 LT1: Leisure and Tourism and LT2: Tourism Development in the Marina are both identified as 'more vulnerable' as they include a residential element. Both areas require the Exception Test. As both allocations are for general areas rather than specific sites, the Exception Test will be undertaken on this basis.

7.30 LT3: Development of Seaton Carew also includes a residential element. However, the policy states that residential uses are not considered to be appropriate in this location between The Front and the sea. This is the location which includes an area in Flood Zone 2 and 3a. Therefore the Exception Test is not required.

8.0 Summary

8.1 The Sequential Test has been undertaken using the evidence provided by the Level 1 SFRA. The draft Level 1 SFRA was commented upon by Northumbrian Water and the Environment Agency and the comments conveyed to JBA Consulting. The lead local flood authority is Hartlepool Borough Council. The Council's Principal Engineer has also reviewed the draft Level 1 SFRA and the draft of this report. The methodology for the Sequential Test has been refined following comments from the Environment Agency. It is consistent with the NPPF and the NPPG and has been endorsed by the Environment Agency.

8.2 The Sequential Test has illustrated that all of the proposed development sites / areas set out in the Publication Local Plan Pre Submission fall into one of the following categories:

- The site is located entirely within FZ1. Therefore it is not necessary to proceed with the Sequential Test.
- The site is located in flood zones 2 and/or 3 in whole or part and the Sequential Test has been passed for one or more of the following reasons:
 - It is not realistic to re-locate the allocation entirely within FZ1.
 - The site already benefits from a resolution to grant planning permission and the Environment Agency has agreed to the proposed flood risk mitigation strategy which will avoid any of the 'more vulnerable' use being located within FZ3.
 - The proportion of the site that is within FZ2 or FZ3 is marginal.
- The site is located in flood zones 2 and/or 3 in whole or part and is classified as 'more vulnerable' or 'highly vulnerable'. The LPA considers that there are wider strategic planning objectives that support the allocation of the site. The allocation needs to be subjected to the Exception Test to determine whether it can be developed safely and whether there are wider sustainability benefits.

Appendix 1: Flood Zones

- These Flood Zones refer to the probability of river and sea flooding, ignoring the presence of defences. They are shown on the Environment Agency's [Flood Map for Planning \(Rivers and Sea\)](#), available on the Environment Agency's web site, as indicated in the table below.

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map – all land outside Zones 2 and 3)
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map)
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	This zone comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

Appendix 2: NPPG Flood risk vulnerability classification

Essential infrastructure

- 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 reasons, 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.

Highly vulnerable

- Police and ambulance stations; fire stations and command centres; telecommunications installations required to be operational during flooding.
- Emergency dispersal points.
- Basement dwellings.
- Caravans, mobile homes and park homes intended for permanent 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').

More vulnerable

- 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, subject to a specific warning and evacuation plan.

Less vulnerable

- Police, ambulance and fire stations which are not required to be operational during flooding.
- Buildings used for shops; financial, professional and other services; restaurants, cafes and hot food takeaways; offices; general industry, storage and distribution; non-residential institutions not included in the 'more vulnerable' class; 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.

Water-compatible development

- 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 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.

✓ Development is appropriate

✗ Development should not be permitted.

Appendix 3: Risk from surface water flooding

Plan ref	Site address	% of site area at risk		
		High (1 in 30 years)	Medium (1 in 100 years)	(Low (1 in 1000 years)
EMP2	Queen's Meadow Business Park	1.48	0.80	5.54
EMP3d	Sovereign Park	3.13	0.49	24.72
EMP4g	Graythorp yard	0.09	0.06	2.37
EMP3i	Zinc Works Road	0.61	0.02	7.52
EMP4e	North Graythorp	0.13	0.19	2.70
EMP3g	Tofts Farm West	1.06	0.32	4.47
EMP3f	Tofts Farm East/Hunter House	1.22	0.79	9.22
EMP3e	Brenda road east	0.21	0.05	3.61
EMP3c	Usworth road	0.62	0.12	5.78
EMP4d	South works	1.40	2.94	10.71
EMP3a	Oaksway	3.23	1.91	22.09
EMP3	Sandgate	0.75	0.10	5.69
EMP3b	Longhill /Sandgate	1.51	2.41	14.85
EMP4b	West of Seaton channel	0.02	0.05	2.67
EMP4c	Philips Tank Farm	1.39	2.85	7.61
EMP3h	Graythorp industrial estate	0.29	0.10	5.18
EMP3c	Park view west	1.00	0.68	9.30
EMP1	Wynyard Park	3.04	0.45	3.65
EMP4f	Graythorp	0.00	0.00	4.53
EMP4a	The Port	0.80	1.35	8.40
INF3	Hospital	0.00	0.06	7.61
EMP5	Nuclear Power Station Reserve	0.17	0.59	2.91
HSG5	High Tunstall	1.80	0.50	3.08
HSG6b	Wynyard Park North	0.56	0.12	1.31
HSG8a	Nine Acres Hart	0.03	0.01	5.75
HSG3	Carr and Hopps	2.89	0.17	22.98
HSG4	South West Extension	3.12	1.52	8.02
HSG8b	Glebe Farm	0.00	0.00	0.41
HSG7	Elwick Village	0.00	0.00	0.00
HSG6a	Pentagon Wynyard	0.29	0.00	0.36

Plan ref	Site address	% of site area at risk		
		High (1 in 30 years)	Medium (1 in 100 years)	(Low (1 in 1000 years)
HSG3	South of John Howe Gardens	0.00	0.00	7.97
HSG3	Briarfields	0.00	0.00	2.45
HSG3	Coronation drive	0.45	0.01	4.30
HSG5a	Quarry Farm	0.00	0.00	0.00
HSG6c	Wynyard Park South	2.58	0.19	3.08
RC6	East of Stranton	0.00	0.00	6.32
RC9	Park Road West	0.00	0.00	3.81
RC11	York Road South	0.00	0.01	6.00
RC5	The Brewery and Stranton	2.39	0.11	6.47
RC10	West Victoria Road	0.00	0.02	10.94
RC4	Avenue Road/Raby Road	0.00	0.00	2.81
RC7	Lynn Strret	1.96	0.46	25.74
RC8	Mill house Edge of Town Centre	0.47	0.14	6.89
RC3	Innovation and Skills Quarter	0.70	0.32	13.89
RC17	Late Night Uses Area	0.53	0.10	8.96
RC16	Local Centres 0	0.00	0.00	16.52
RC16	Local Centres 1	0.00	0.00	0.00
RC16	Local Centres 2	1.44	0.03	15.40
RC16	Local Centres 3	4.06	0.01	2.65
RC16	Local Centres 4	0.00	0.00	0.01
RC16	Local Centres 5	0.00	0.00	5.91
RC16	Local Centres 6	0.00	0.00	0.00
RC16	Local Centres 7	0.00	0.01	34.62
RC16	Local Centres 8	0.00	0.00	4.11
RC16	Local Centres 9	0.00	0.00	0.00
RC16	Local Centres 10	3.81	0.03	33.84
RC16	Local Centres 11	0.00	0.01	1.90
RC16	Local Centres 12	5.02	0.03	15.63
RC16	Local Centres 13	0.77	0.03	13.75
RC16	Local Centres 14	0.00	0.00	11.13
RC16	Local Centres 15	0.00	0.00	0.00
RC16	Local Centres 16	0.00	0.02	32.93

Plan ref	Site address	% of site area at risk		
		High (1 in 30 years)	Medium (1 in 100 years)	(Low (1 in 1000 years)
RC16	Local Centres 17	9.52	0.05	37.12
RC16	Local Centres 18	0.00	0.00	0.00
RC16	Local Centres 19	0.00	0.00	3.04
RC16	Local Centres 20	3.76	0.31	24.22
RC16	Local Centres 21	0.00	0.00	0.00
RC16	Local Centres 22	0.00	0.00	11.08
RC16	Local Centres 23	0.00	0.00	6.15
RC16	Local Centres 24	0.52	0.00	20.51
RC16	Local Centres 25	0.00	0.00	0.00
RC16	Local Centres 26	0.00	0.00	5.94
RC16	Local Centres 27	0.00	0.02	3.27
RC16	Local Centres 28	0.00	0.00	4.27
RC16	Local Centres 29	0.00	0.00	0.00
RC16	Local Centres 30	0.00	0.00	12.49
RC16	Local Centres 31	0.00	0.00	4.38
RC16	Local Centres 32	0.00	0.00	0.00
RC1	Primary Shopping Area	1.52	0.69	15.03
RC15	Teesbay	6.33	0.17	12.85
RC14	Trincomalee Wharf	0.54	0.10	8.58
RC13	West of Marina Way	0.76	0.23	7.78
RC12	The Marina	0.37	0.12	3.61
RC2	The Town Centre	0.86	1.11	10.86
LT1	The Headland	0.69	0.66	5.31
LT2	The Marina	0.48	0.60	4.42
LT3	Seaton Carew	1.34	0.68	6.60

Appendix 4: Assessment of development sites / areas

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
INF3 University Hospital of Hartlepool	Infrastructure	7.8	0.91	25.3	0	More vulnerable	25.3% of the site is within FZ3a. The proposed allocation is 'more vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The purpose of the policy is to safeguard existing services which have been operational for several decades. The re-location of these services is not feasible for the foreseeable future owing to financial constraints and would also be a matter of great public and political debate. It is considered that the Sequential Test has been passed.
HSG3i South of John Howe Gardens	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
HSG3ii Carr and Hopps	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
HSG3iii Briarfields	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
HSG3iv Coronation Drive	Housing	98.7	1.29	0	0	More vulnerable	The site is within the urban area. There are deliverability challenges in relation to the site regarding contamination and peat bands but the site has been assessed as deliverable in the strategic housing land availability assessment (SHLAA).

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							<p>1.29% of the site is within FZ2. The proposed allocation is 'more vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. A site specific risk assessment would be required and this would take into account the height of the existing coastal defences. With the defences in place the risk of flooding to this site is considered negligible and no properties will be located within the area with a medium probability of flooding. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level.</p> <p>The locational strategy for the distribution of housing includes locating new housing development within the urban area on suitable and deliverable brownfield sites. Although the site is greenfield, the SHLAA shows that no alternative suitable and deliverable sites within the urban area to those proposed for allocation have been identified. Moreover, development of the site would deliver the benefit of the environmental remediation of the site. Therefore there are no sites available that are sequentially preferable. It is considered that the Sequential Test has been passed.</p>
HSG4 The SW	Housing	92.8	1.58	0	5.5	More	The site is a strategic urban extension. The site has been assessed as deliverable in the strategic housing land availability assessment

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
Extension						vulnerable	<p>(SHLAA).</p> <p>5.5% of the site is within FZ3b and 1.58% is within FZ2. The proposed allocation is 'more vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. An outline planning application has been submitted to develop the site for 1250 dwellings. The planning application has been submitted and now benefits from a resolution to approve subject to the signing of a section 106 agreement.</p> <p>Through the planning application process it has been agreed that no properties will be located within FZ3 and works to create flood shelving have been incorporated into the proposals. Run off from the site has been limited to Greenfield and the only development within the FZ3 is that of an access road and bridge, both of which have been elevated to be out of the flood zone. The Environment Agency is a consultee for the planning application and has agreed this approach. The site is proposed to be allocated to ensure that the appropriate masterplanning happens on the full application.</p> <p>The locational strategy for the distribution of housing includes a south west extension of the town of approximately 1250 dwellings. The SHLAA shows that no alternative suitable and deliverable urban extension sites, to those proposed for allocation, have been identified that can deliver the scale of</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							housing required. Therefore there are no sites available that are sequentially preferable. It is considered that the Sequential Test has been passed
HSG5 High Tunstall	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
HSG5a Quarry Farm	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
HSG6a North Pentagon	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
HSG6b Wynyard Park North	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
HSG6c Wynyard Park South	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
HSG7 Elwick Village	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
HSG8a Nine Acres	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
HSG8b Glebe Farm	Housing	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
EMP1 Prestige Employment Site Wynyard Business Park	Employment	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.
EMP2 Queens Meadow Business Park	Employment	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.
EMP3a Oakesway	Employment	83.7	1.74	14.5	0	Less vulnerable	<p>The site lies within an existing employment area. The Employment Land Review (ELR) identified that there is a surplus of employment land and recommended specific sites for de-allocation. The Oakesway site was not recommended for de-allocation.</p> <p>The ELR commented that the site is 'attracting developer/occupier interest, but that interest remains tentative at this time. It must be accepted that the development of this location is a long term prospect and will likely exceed the lifetime of the Enterprise Zone here. The Council should therefore continue to monitor this location, responding to changing economic circumstances as</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							<p>appropriate.'</p> <p>14.5% of the site is within FZ3a. The proposed allocation is 'less vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level.</p> <p>The designation 'less vulnerable' has been confirmed by the Council's Planning Policy and Economic Regeneration teams. Existing uses include Phoenix Steel, a cardboard manufacturer and a manufacturer of UPVC windows. Policy EMP3 is a general industrial policy. It does not permit specialist uses such as the manufacture or storage of hazardous substances. The Homes and Communities Agency have proposed residential development on the land which is currently undeveloped at the estate. The Council does not support this proposal as it would be contrary to the sequential approach to development.</p> <p>The Council considers that the potential environmental impacts of delivering the Council's employment land requirements are minimised by carrying existing employment allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified. Therefore there are no sites available that are sequentially preferable. It is considered that the site has passed the Sequential Test.</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
EMP3b Longhill / Sandgate	Employment	86	2.6	11.3	0	Less vulnerable	<p>The site lies within an existing employment area. The Employment Land Review (ELR) identified that there is a surplus of employment land and recommended specific sites for de-allocation. The Longhill / Sandgate site was not recommended for de-allocation. The ELR commented that the site is a key location for local industrial businesses and a study should be undertaken into regeneration opportunities. This study has been completed and led to a £1.8m investment which has resulted in significant environmental and other improvements in the estate with associated private sector job creation and enhanced opportunities for investment.</p> <p>11.3% of the site is within FZ3a. The proposed allocation is 'less vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The site is an existing employment allocation with existing units in operation but some vacant units. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level.</p> <p>The designation 'less vulnerable' has been confirmed by the Council's Planning Policy and Economic Regeneration teams. Although Policy EMP3 is a general industrial land policy, it does allow the storage of waste materials within the Sandgate area. However, it is not a logical location for the storage of hazardous materials given that the close proximity of residential</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							<p>communities and such uses would be unlikely to be granted planning permission.</p> <p>The current uses on the site include recycling facilities, haulage companies and a small amount of retail development. The area within FZ3a has historically been associated with flooding. The majority of this area is already developed with existing uses including a Tesco store, builders merchants, a McDonald's outlet, the Council's recycling yard and an engineering company.</p> <p>The Council considers that the potential environmental impacts of delivering the Council's employment land requirements are minimised by carried existing employment allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified. Therefore there are no sites available that are sequentially preferable. It is considered that the Sequential Test has been passed.</p>
EMP3c Usworth Road / Park View West	Employment	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.
EMP3d Sovereign Park	Employment	75	0	24.9	0	Less vulnerable	The site lies within an existing employment area. The Employment Land Review (ELR) identified that there is a surplus of employment

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							<p>land and recommended specific sites for de-allocation. The Sovereign Park site was not recommended for de-allocation.</p> <p>The ELR commented that the site ‘Expansion land for an established industrial estate. However, site is constrained and owner has aspirations for housing uses here so ongoing monitoring and study is required to determine long term viability.’</p> <p>24.9% of the site is within FZ3a. The proposed employment allocation is 'less vulnerable' according to Table 3: Flood risk vulnerability and flood zone ‘compatibility’ in the National Planning Practice Guidance. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level. The site has been promoted for housing development but housing is a more vulnerable use.</p> <p>The designation ‘less vulnerable’ has been confirmed by the Council’s Planning Policy and Economic Regeneration teams. Policy EMP3 is a general industrial policy. It does not permit specialist uses such as the manufacture or storage of hazardous substances. The area of the site that is in FZ3a is confined to the southern fringe of the site. Hansteen own Land available for the future expansion of Sovereign Park and have promoted this land</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							<p>through the Local Plan process as a housing development opportunity. The Council does not support housing development on the site as it would be contrary to the sequential approach to development.</p> <p>The Council considers that the potential environmental impacts of delivering the Council's employment land requirements are minimised by carrying existing employment allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified. Therefore there are no sites available that are sequentially preferable. It is considered that the site has passed the Sequential Test.</p>
EMP3e Brenda Road	Employment	90.9	0	9.01	0	Less vulnerable	<p>The site lies within an existing employment area. The Employment Land Review (ELR) identified that there is a surplus of employment land and recommended specific sites for de-allocation. The Brenda Road site was not recommended for de-allocation.</p> <p>The ELR commented 'Retain as local employment area for B1/B2/B8 (and appropriate ancillary) uses.'</p> <p>9.01% of the site is within FZ3a. The proposed allocation is 'less vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance.</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							<p>The site is an existing employment allocation with existing units in operation but some vacant units. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level.</p> <p>The designation 'less vulnerable' has been confirmed by the Council's Planning Policy and Economic Regeneration teams. Policy EMP3 is a general industrial policy. It does not permit specialist uses such as the manufacture or storage of hazardous substances and residential development has recently been granted planning permission in close proximity to the site. In addition a mixed use development including residential care apartments has recently been granted planning permission in the locality which would be a significant material consideration against the granting of planning permission for potentially polluting or hazardous development. The area of the site that is in FZ3a is confined to the southern fringe of the site.</p> <p>The Council considers that the potential environmental impacts of delivering the Council's employment land requirements are minimised by carrying existing employment allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified. Therefore</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							there are no sites available that are sequentially preferable. It is considered that the Sequential Test has been passed.
EMP3f Tofts Farm East / Hunter House	Employment	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.
EMP3g Tofts Farm West	Employment	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.
EMP3h Graythorp Industrial Estate	Employment	99.6	0.16	0.2	0	Less vulnerable	<p>0.20% of the site is within FZ3a and 0.16% is within FZ2. There are existing uses that are 'highly vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is not the purpose of the Sequential Test to screen existing operational uses that already have planning permission.</p> <p>The designation 'less vulnerable' has been confirmed by the Council's Planning Policy and Economic Regeneration teams. Although Policy EMP3 is a general industrial land policy, it does allow the storage of waste materials within Graythorp Industrial Estate. However, the storage of hazardous materials is a highly specific use that has not been identified as within the scope of the policy and would be unlikely to be granted planning permission.</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							The site is an existing employment allocation with existing units in operation but some vacant units. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level. It is considered that the Sequential Test has been passed.
EMP3i Zinc Works Road	Employment	0.01	0.11	99.8	0	Less vulnerable	<p>The site lies within an existing employment area. The Employment Land Review (ELR) identified that there is a surplus of employment land and recommended specific sites for de-allocation. The Zinc Works site was not recommended for de-allocation.</p> <p>The ELR commented 'Retain as local employment area for B1/B2/B8 (and appropriate ancillary) uses.</p> <p>99.98 of the site is within FZ3a and 0.11% is within FZ2. The proposed allocation is 'less vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The site is an existing employment allocation with existing units in operation but some vacant units. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level.</p> <p>The designation 'less vulnerable' has been confirmed by the Council's Planning Policy and Economic Regeneration teams. The</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							<p>site is currently grazing land with no existing development uses. Policy EMP3 is a general industrial policy. It does not permit specialist uses such as the manufacture or storage of hazardous substances.</p> <p>The Council considers that the potential environmental impacts of delivering the Council's employment land requirements are minimised by carrying existing employment allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified. Therefore there are no sites available that are sequentially preferable. It is considered that the Sequential Test has been passed.</p>
EMP4a Hartlepool Port	Employment	85.7	3.11	11.2	0	Water compatible	<p>The site lies within an existing employment area. The Employment Land Review (ELR) identified that there is a surplus of employment land and recommended specific sites for de-allocation. The Hartlepool Port site was not recommended for de-allocation.</p> <p>The ELR commented 'Hartlepool has a number of assets which are of national significance and will draw investment into the Borough. These include 'Hartlepool Port (a major support and manufacturing facility for the offshore wind energy sector, supported by Tata Hartlepool)'</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							<p>11.2% of the site is within FZ3a and 3.11% is within FZ2. The proposed allocation is 'water compatible' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The site is an existing employment allocation with existing units in operation but some vacant units. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level.</p> <p>The Council considers that the potential environmental impacts of delivering the Council's employment land requirements are minimised by carrying existing employment allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified. Therefore there are no sites available that are sequentially preferable. It is considered that the Sequential Test has been passed.</p>
EMP4b West of Seaton Channel	Employment	0.33	0.05	99.6	0	Essential Infrastructure	<p>99.6% of the site is within FZ3a. The proposed allocation is 'essential infrastructure according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The existing operational user is Huntsman Tioxide which is a global manufacturer and marketer of differentiated chemicals. The site manufactures titanium dioxide</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							pigments which requires the import of raw materials and then exports the finished product globally, in both instances via Tees Port. In the event of there being new development at this location it would almost certainly be an expansion of the existing activity. The optimum location to minimise environmental impacts for this use is one that is away from residential communities and is accessible to port facilities. The LPA considers that there is a demonstrable need for the allocation to be in this location. It is a priority site for the Council due its contribution to the supply of employment land. The Exception Test is required.
EMP4c Phillips Tank Farm	Employment	80.2	3.44	16.3	0	Essential Infrastructure	16.3% of the site is within FZ3a. The proposed allocation is 'essential infrastructure' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The existing operational user is ConocoPhillips, an oil and gas company. In the event of there being new development at this location it would almost certainly be an expansion of the existing activity. The site links to an oil pipeline which runs from the coast and is essential in order to refine the stored substances. The optimum location to minimise environmental impacts for this use is one that is away from residential communities and is linked to an oil pipeline. In

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							addition, this location minimises societal risk from the pipeline as the further the oil is transported, the greater the potential for accidents. The LPA considers that there is a demonstrable need for the allocation to be in this location. It is a priority site for the Council due its contribution to the supply of employment land. The Exception Test is required.
EMP4d South Works	Employment	99.8	0	0.19	0	Highly vulnerable	<p>The site lies within an existing employment area. The Employment Land Review (ELR) identified that there is a surplus of employment land and recommended specific sites for de-allocation. The South Works was not recommended for de-allocation.</p> <p>The ELR commented ‘Retain as facilities for a major national employer.’</p> <p>0.19% of the site is within FZ3a. The proposed allocation is ‘highly vulnerable’ according to Table 3: Flood risk vulnerability and flood zone ‘compatibility’ in the National Planning Practice Guidance. The site is an existing employment allocation with existing units in operation but some vacant units. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level.</p> <p>The Council considers that the potential environmental impacts of</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							delivering the Council's employment land requirements are minimised by carrying existing employment allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified. Therefore there are no sites available that are sequentially preferable. Any new development on the site would almost certainly be an expansion of the existing operation. The existing operational user is Tata Steel which produces large pipes which are stockpiled for orders requiring a very large area for storage space, but one which has minimal visual sensitivity and where any ground contamination is contained away from residential areas. This location is considered to be the optimum for this type of use. It is considered that the Sequential Test has been passed.
EMP4e North Graythorp	Employment	100	0	0	0	Highly vulnerable	The site is completely within FZ1. The Sequential Test is not required.
EMP4g Able Seaton Port	Employment	62.3	9.71	27.9	0	Essential infrastructure	27.9% of the site is within FZ3a. The proposed allocation is 'essential infrastructure according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. Existing operational uses include the dismantling of marine infrastructures including those associated with hazardous uses. The optimum location to minimise

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							environmental impacts for this use is one that is away from residential communities and with port facilities. It is one of only a small number of port facilities nationally with the capabilities of dismantling the size of structures which it deals with. The LPA considers that there is a demonstrable need for the allocation to be in this location. It is a priority site for the Council due to its importance to the Government's energy strategy. The Exception Test is required.
EMP5 Nuclear Power Station	Employment	41.5	8.73	49.7	0	Essential infrastructure	49.7% of the site is within FZ3a. The proposed allocation is 'essential infrastructure' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is a priority site for the Council due to its importance to the Government's energy strategy. The Exception Test is required.
EMP6 Underground Storage	Employment	0	0	100	0	Essential infrastructure	100% of the site is within FZ3a. The proposed allocation is 'essential infrastructure' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The Exception Test is required.
RC1 Retail Hierarchy (Primary Shopping)	Retail and Commercial	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
Area)							
RC2 The Town Centre	Retail and Commercial	94.6	0.61	4.77	0	More vulnerable	4.77% of the site is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is a priority site for the Council as it is the main focus for retail and commercial development. The Exception Test is required.
RC3 Innovation and Skills Quarter	Retail and Commercial	71	2.67	26.3	0	Less vulnerable	<p>The site is an existing retail and commercial area. Its identification as an innovation and skills quarter is guided by the recommendation included in the Regeneration Masterplan.</p> <p>26.3% of the site is within FZ3a and 2.67% is within FZ2. The proposed allocation is 'less vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level.</p> <p>The Council considers that the potential environmental impacts of delivering the Council's retail and commercial development allocation requirements are minimised by carrying existing retail and commercial allocations forward. In addition, no alternative available and deliverable sites to those that are proposed for allocation have been identified. Therefore there are no sites available that are sequentially preferable. It is considered that the</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							site has passed the Sequential Test.
RC4 Avenue Road / Raby Road	Retail and Commercial	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.
RC5 The Brewery and Stranton	Retail and Commercial	79.3	0.28	20.4	0	More vulnerable	20.4% of the site is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is a priority site for the Council due to its importance as an edge of centre retail and commercial site. The Exception Test is required.
RC6: East of Stranton	Retail and Commercial	89.3	5.07	5.62	0	Less vulnerable	<p>The site is an existing retail and commercial area. 5.62% of the site is within FZ3a and 5.07% is within FZ2. The proposed allocation is 'less vulnerable' according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is considered that flood risk can be mitigated and managed through site layout and design to reduce it to an acceptable level.</p> <p>The Council considers that the potential environmental impacts of delivering the Council's retail and commercial development allocation requirements are minimised by carrying existing retail and commercial allocations forward. In addition, no alternative</p>

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							available and deliverable sites to those that are proposed for allocation have been identified. Therefore there are no sites available that are sequentially preferable. It is considered that the site has passed the Sequential Test.
RC7: Lynn Street	Retail and Commercial	32.3	4.6	63.1	0	More vulnerable	63.1% of the site is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is a priority site for the Council due to its importance as an edge of centre retail and commercial site and as part of the Innovation and Skills Quarter. The Exception Test is required.
RC8: Mill House	Retail and Commercial	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.
RC9: Park Road	Retail and Commercial	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.
RC10: West Victoria	Retail and Commercial	100	0	0	0	Less vulnerable	The site is completely within FZ1. The Sequential Test is not required.
RC11: York Road South	Retail and	83.6	0.63	15.7	0	More vulnerable	15.7% of the site is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element)

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
	Commercial						according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. . It is a priority site for the Council due to its importance as an edge of centre retail and commercial site. The Exception Test is required.
RC12: The Marina Retail and Leisure Park	Retail and Commercial	43.7	3.7	49.6	0	More vulnerable	43.7% of the site is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is a priority site for the Council due to its importance as a retail and leisure park. The Exception Test is required.
RC13: West of Marina Retail and Leisure Park	Retail and Commercial	100	0	0	0	More vulnerable	The site is completely within FZ1. The Sequential Test is not required.
RC14: Trincomalee Wharf Retail and Leisure Park	Retail and Commercial	79.5	9.9	10.5	0	More vulnerable	10.5% of the site is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. . It is a priority site for the Council due to its importance as an edge of centre retail and commercial site. The Exception Test is required.
RC15: Tees	Retail and	100	0	0	0	Less	The site is completely within FZ1. The Sequential Test is not

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
Bay Retail and Leisure Park	Commercial					vulnerable	required.
RC16: Northgate / Union Street Local Centre	Retail and Commercial	1.01	1.33	0	97.7	More vulnerable	97.7% of the site is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is a priority site for the Council due to its importance as a retail and commercial local centre. The Exception Test is required.
RC16: Seaton Front Local Centre	Retail and Commercial	87.5	0	12.5	0	More vulnerable	12.5% of the site is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is a priority site for the Council due to its importance as a retail and commercial local centre. The Exception Test is required.
RC17: Late Night Uses Area	Retail and Commercial	82.7	1.71	15.5	0	More vulnerable	15.5% of the site is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. It is a priority site for the Council due to its importance as a late night uses area. The Exception Test is required.

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
LT1: Leisure and Tourism	Leisure and Tourism	73.5	6.13	20.3	0	More vulnerable	20.3% of the area is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The Exception Test is required. The allocation is a general area rather than a specific site and the Exception Test will be undertaken on this basis.
LT2: Tourism Development in the Marina	Leisure and Tourism	64.5	3.92	31.5	0	More vulnerable	31.5% of the area is within FZ3a. The proposed allocation is 'more vulnerable' (as the mix of uses includes a residential element) according to Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. The Exception Test is required. The allocation is a general area rather than a specific site and the Exception Test will be undertaken on this basis.
LT3: Development of Seaton Carew	Leisure and Tourism	87.8	6.23	5.96	0	Less vulnerable	5.96% of the area is within FZ3a. The proposed allocation includes a residential element. Residential development is 'more vulnerable' according Table 3: Flood risk vulnerability and flood zone 'compatibility' in the National Planning Practice Guidance. However, the policy states that residential uses are not considered to be appropriate in this location between The Front and the sea. This is the location which includes an area in Flood

Local Plan reference	Allocation	FZ1	FZ2	FZ3a	FZ3b	Vulnerability classification	Officer comments
							Zone 2 and 3a. Therefore the Exception Test is not required.