



Fawley Waterside Ltd.

FAWLEY WATERSIDE

Sequential Test (New Forest National Park Area)





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EXECUTIVE SUMMARY

WSP was commissioned by Fawley Waterside Ltd. in March 2018 to perform a Sequential Test on potential allocation sites included in New Forest National Park Authority's (NFNPA) 'Call for Sites' exercise.

A total of 180 sites were included in the Call for Sites exercise, which forms part of the evidence base for NFNPA's Local Plan 2016-2036 review, and, following a filtering process (for repeated sites and sites not applicable to NFNPA) and an amalgamation process (to group five Fawley Waterside linked sites into one), 164 sites were left to include within the Sequential Test.

The sites have been sequentially tested and ranked using the latest available Strategic Flood Risk Assessment (SFRA) flood mapping, complemented by the Environment Agency's Risk of Flooding from Surface Water Flooding (planning maps). Groundwater flood mapping has not been used to rank sites because its resolution was considered too coarse. At 1 km² grid size (100 hectares) its use in the test, where no site is greater than 74 ha in area and most sites are between 0.03 – 10 ha, would distort the results.

Application of the Sequential Test using the SFRA flood mapping and the Risk of Flooding from Surface Water resulted in the Fawley Waterside site being placed 152nd out of 164.

Of the 151 sites ranked above Fawley Waterside, on the basis of the evidence presented in this report, none appear to be capable of providing the type, size and scale of development proposed at the Fawley Waterside site. Therefore, it is reasonable to conclude that the Fawley Waterside site provides the best opportunity for the mixed use, marine-centred development being proposed.

In its existing form the Fawley Waterside site is located predominantly in Flood Zone 1 (68%) within the NFNPA administrative boundary, with smaller parts of the site falling into Flood Zones 2 (4%), 3a (9%) and 3b (19%). Under the National Planning Policy Framework (NPPF) Planning Practice Guidance (PPG), residential housing is classed as 'More Vulnerable' and is considered appropriate in Flood Zones 1 and 2 according to Table 3 of the NPPF PPG, subject to application of the sequential approach.

Stage 1 of NFNPA's Strategic Housing Land Availability Assessment (SHLAA) site selection process used 'key criteria' including flood risk to perform an initial screening of 173 sites. It is noted that nine of these sites were either approved planning applications, or located within the NFDC, or represented a SANG as part of a site where the residential element is located in the NFDC. Therefore the actual number of sites that were screened at Stage 1 was 164.

Nine of the 164 sites were screened out at Stage 1 including some that are deemed to be at lower risk of flooding than Fawley Waterside. The general approach taken by NFNPA was that sites rejected at Stage 1 were not carried forward in the site selection process. Fawley Waterside did not satisfy the flood risk criteria however paragraph 107 of the NPPF allows local planning authorities to consider development in coastal areas appropriate where it is demonstrated that, "*it will be safe over its planned lifetime and will not have an unacceptable impact on coastal change*" and, "*the development provides wider sustainability benefits*".

Paragraph 4.19 of the NFNPA's Local Plan Review also states that NFNPA has made provision in the Local Plan for development in the National Park to support the redevelopment of the brownfield site at the former Fawley Power Station site. NFNPA and NFDC commissioned a Viability Assessment which concluded that the redevelopment of the former Fawley Power Station cannot come forward without some development within the National Park boundary.

Stage 2 of NFNPA's assessment consisted of a more detailed analysis of the 155 remaining sites in which each site was compared against 11 sustainability criteria. This resulted in 14 sites being selected as having the potential for housing development, including two sites within the Fawley Waterside boundary; Land at Tom Tiddlers Ground and Land at Calshot Village.

NFNPA has also prepared a Sustainability Appraisal (SA) report assessing five of the remaining 14 sites from the SHLAA, including the above two sites, against ten sustainability criteria.

The two sites were graded negative on SA Objectives 1 (conserve landscape), 2 (conserve and enhance conservation interests) and 3 (conserve and enhance built environment, heritage and culture). However, the scores do not preclude the Fawley Waterside site from potentially being identified by NFNPA as an allocation

site; instead it shows that NFNPA requires Fawley Waterside Ltd. to undertake sufficient further work to demonstrate that the site satisfies NFNPA's sustainability objectives.

Our preliminary assessment of the Fawley Waterside site indicates that the proposed development includes opportunities to protect nationally and internationally important wildlife sites in its vicinity, minimise impacts on local wildlife sites and create new wildlife habitats thereby providing a net gain in biodiversity.

Regarding climate change, measures exist to defend the site, thereby protecting it from flood risk over its lifetime. Furthermore, the surface water drainage strategy for the site will incorporate SuDS designed to cater for standard design flood events that include an allowance for climate change¹. New landscapes and enhanced woodland corridors will be proposed to enhance the environment, as will the integration of biodiversity into the development.

Parts of the existing site are indicated to lie within Flood Zone 3. If housing is proposed in Flood Zone 3 the Exception Test must be satisfied before it can be considered acceptable. Part one of the Exception Test will be satisfied by proposals that show the site will provide sustainability benefits that outweigh flood risk. Part two will be met by a satisfactory Flood Risk Assessment that demonstrates the proposed development will be safe from flood risk over its lifetime and will not increase flood risk on or off site. It is noted that the site is proposed to be raised to provide a development platform above the predicted coastal flood level such that all development on site will be located in Flood Zone 1. Proposals for the site will also include a SuDS drainage design that will take account of climate change thereby further satisfying this requirement.

In summary, developing the site addresses multiple issues such as dealing with potentially contaminated land, putting previously developed land back into use, enhancing biodiversity, providing resilience against climate change, and providing landscaping that contributes to enhancing local biodiversity. Furthermore, it will bring significant economic and aesthetic benefits to the area. On this basis it is considered that there are no reasons why the site should not be brought forward for allocation.

Paragraph 4.19 of the NFNPA's Regulation 19 Submission Draft of the Local Plan (January 2018) clearly indicates that the NFNPA agrees with this by confirming that the Local Plan makes provision for development in the National Park to support the redevelopment of the brownfield site at the former Fawley Power Station site.

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¹ Climate change allowances will be taken from the Environment Agency's February 2016 publication: Flood risk assessments: climate change allowances (<https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>)

1 INTRODUCTION

1.1 APPOINTMENT AND BRIEF

- 1.1.1. WSP was commissioned by Fawley Waterside Ltd. in March 2018 to undertake a NPPF Sequential Test to compare the Fawley Waterside site with other potential allocation sites located within the New Forest National Park Authority's (NFNPA) administrative boundary.
- 1.1.2. A requirement of NFNPA's draft Local Plan is that a Sequential Test and Flood Risk Assessment should be undertaken to confirm Fawley Waterside's suitability for development and inform proposed flood mitigation measures. The normal process would be for NFNPA to complete a Sequential Test for all potential allocations and then use the information generated to identify sustainable development locations; balancing a diverse range of sustainability issues. However, in order to satisfy their own requirements and support NFNPA with theirs, Fawley Waterside Ltd. has commissioned WSP to carry out a Sequential Test on their behalf.

1.2 SITE LOCATION

- 1.2.1. The Fawley Waterside site is located near Calshot, on the west bank of Southampton Water, approximately 1.5 km south east of the village of Fawley. It is the site of the decommissioned Fawley Power Station, which closed down in 2013, and is approximately 120ha in total area (i.e. land falling within the National Park and District Council boundaries). The site is mainly comprised of previously developed land (PDL) including the decommissioned Fawley Power Station and Fawley Quarry, as well as undeveloped land including Tom Tiddler's Land to the south of the power station, Calshot Marshes (local nature reserve), North Solent SSSI and Hythe to Calshot Marshes SSSI. The approximate grid reference is (447365, 102440) and the post code is SO45 1TW. Refer to Appendix A for a Site Location Plan (Drawing No. 18569-LOC-001).

1.3 PROPOSED FAWLEY WATERSIDE DEVELOPMENT

- 1.3.1. A masterplan for the site is not yet finalised however the development is likely to comprise the following:
- ┆ Light industrial and storage, warehouse and distribution uses (Class B1/B2/B8) for the marine and energy sectors, including renewable technology;
 - ┆ Office, and research & development (Class B1) uses focused around the quayside;
 - ┆ Shops, cafes, restaurants, community centre, health and fitness uses (e.g. doctors and dentists) to be located within the centre of Fawley Waterside, focused on the quayside;
 - ┆ The creation of a new marina for leisure and commercial uses, including a proposed ferry service;
 - ┆ A new community of approximately 1,500 homes set within a network of open space;
 - ┆ New and enhanced footpath and cycle network linking the development to surrounding settlements and the New Forest; and
 - ┆ A new primary school for the development and surrounding settlements.

1.4 THE NATIONAL PLANNING POLICY FRAMEWORK

- 1.4.1. The National Planning Policy Framework (NPPF) and its supporting Flood Risk and Coastal Change Planning Practice Guidance (PPG) sets out a hierarchical system for allocating development uses - consisting of essential infrastructure, highly vulnerable, more vulnerable, less vulnerable and water-compatible uses - depending on their level of vulnerability to flooding. This hierarchy effectively identifies the types of uses which are appropriate within the individual flood risk zones.
- 1.4.2. When allocating sites for development the NPPF requires that local planning authorities (LPAs) should apply the sequential approach by allocating sites in areas of lowest flood risk first (i.e. Flood Zone 1). Where there are no reasonably available sites in Flood Zone 1 LPAs should then consider reasonably available sites in Flood Zone 2, applying the Exception Test if required. Only where there are no reasonably available sites in Flood Zones 1 or 2 should sites in Flood Zone 3 be considered, again applying the Exception Test if required. This process is referred to as the Sequential Test and forms one piece of evidence based strategic land use planning in emerging Local Plans.
- 1.4.3. According to Table 2 (Flood Risk Vulnerability Classification) of the NPPF PPG, the Proposed Development is classified as a mixture of more vulnerable (residential, educational etc.), less vulnerable (offices, retail, leisure, industry etc.) and water compatible (marina, docks etc.) uses.

1.4.4. Table 3 (Flood Risk Vulnerability and Flood Zone Compatibility) of the PPG states that:

- i Within Flood Zone 1, all the above types of land use are appropriate;
- i Within Flood Zone 2, all the above types of land use are appropriate subject to the Sequential Test being met; and
- i Within Flood Zone 3, appropriate uses are 'less vulnerable' and 'water compatible'. 'More vulnerable' use should only be permitted in Flood Zone 3 if the Exception Test is passed. Only 'water compatible' use is allowed in Flood Zone 3b.

1.5 FLUVIAL AND COASTAL FLOOD RISK

1.5.1. The Environment Agency has mapped fluvial / coastal flood risk across England using a series of Flood Zones, which refer to the probability of river and sea flooding. All land is categorised into one of three zones; Flood Zone 1, Flood Zone 2 and Flood Zone 3.

- i Flood Zone 1 comprises land assessed as having less than a 1 in 1,000 annual probability of river or sea / tidal flooding (<0.1%) in any year;
- i Flood Zone 2 comprises land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% - 0.1%) or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% - 0.1%) in any year; and
- i Flood Zone 3 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 sea / tidal flooding (>0.5%) in any year.

1.5.2. For the purposes of this Sequential Test WSP used flood modelling outputs generated by JBA Consulting on behalf of NFNPA and the New Forest District Council (NFDC) as part of their work on the combined Level 1 SFRA (October 2017). It is acknowledged that the modelling has not been signed off by the Environment Agency at the time of writing however this is anticipated in the next 2 – 4 months. Currently the model output is assumed to be the latest and most up to date flood maps available for the NFNPA and NFDC administrative boundaries.

1.5.3. A figure showing the sites tested superimposed on the above flood zones for fluvial / coastal flooding is provided in Appendix B (refer to Figure No.18569-EA-001).

1.6 REQUIREMENT FOR SEQUENTIAL TEST

1.6.1. This Sequential Test has been produced to meet the requirement of NFNPA's draft Local Plan, insofar as a Sequential Test and Flood Risk Assessment (FRA) should be undertaken to confirm Fawley Waterside's suitability for development and inform proposed flood mitigation measures. The Sequential Test will compare potential allocation sites in terms of flood risk and determine their ranking. Sites at lowest risk of flooding will appear at the top of the ranking list, and sites at highest risk will appear at the bottom.

1.6.2. In tandem with the Sequential Test, a FRA is being carried out for the Fawley Waterside site. An approved FRA will satisfy the second part of an Exception Test for the site.

1.6.3. The first part of the Exception Test will be satisfied by the wider sustainability benefits / opportunities the Proposed Development will provide.

1.7 AREA OF SEARCH

1.7.1. As part of the Sequential Test process an 'Area of Search' was agreed in consultation with NFNPA. The Area of Search (AoS) for this Sequential Test has been agreed as being the NFNPA boundary, including where it overlaps with other authorities such as Test Valley District Council and Wiltshire Council. NFNPA has agreed this AoS with the Environment Agency. Refer to NFNPA correspondence dated 16th April 2018 in Appendix D.

1.7.2. In undertaking this Sequential Test WSP has reviewed NFNPA's Local Plan Review 2016 – 2036, and the supporting Sustainability Appraisal (SA) and Strategic Housing Land Availability Assessment (SHLAA) to understand the filtering process undertaken by NFNPA to screen the potential sites and assess the Local Plan's robustness.

1.8 NFNPA SITE SCREENING

1.8.1. As part of their Local Plan Review evidence base NFNPA has undertaken a SHLAA and SA to confirm which sites have a potential for housing development. The SHLAA comprises several stages to enable the sites to be screened based on certain criteria and the SA appraises a number of the sites that have the potential for housing development.

- 1.8.2. Our review of the NFNPA's Local Plan evidence base found that a total of 173 potential sites were considered in the SHLAA. Of these, it is noted that nine either had an approved planning application, or were located within the NFDC or represented a SANG as part of a site where the residential element was located in the NFDC.
- 1.8.3. Nine sites were screened out in Stage 1 as being unsuitable for housing development. 155 sites progressed to a more detailed assessment with only 14 assessed to have the potential for housing development. The remaining 141 were considered to be unsuitable, unavailable or unachievable.
- 1.8.4. Fawley Waterside did not meet the flood risk criteria in Stage 1 however paragraph 107 of the NPPF allows local planning authorities to consider development in coastal areas appropriate where it is demonstrated that, *"it will be safe over its planned lifetime and will not have an unacceptable impact on coastal change"* and, *"the development provides wider sustainability benefits"*.
- 1.8.5. Furthermore, the extent of Fawley Waterside land falling within the National Park boundary is only being proposed for housing development in order to support the wider redevelopment of the Power Station site. Paragraph 4.19 of the NFNPA's Local Plan Review (see Appendix F for Local Plan extract) states that NFNPA has made provision in the Local Plan for development in the National Park to support the redevelopment of the brownfield site at the former Fawley Power Station site.
- 1.8.6. Paragraph 7.32 of the Local Plan Review (January 2018) states that, *'the Authority has concluded that the comprehensive development of the Power Station site to include a limited area of adjoining land within the National Park can be justified against the major development tests.'* Refer to Appendix F.

1.9 FAWLEY WATERSIDE VIABILITY ASSESSMENT

- 1.9.1. NFNPA and NFDC jointly commissioned a detailed viability assessment that included a wide range of development options at the former Fawley Power Station site.
- 1.9.2. The conclusions of this viability assessment indicate that *"some development within the National Park is required to achieve a viable scheme. This could be in the form of 120 larger market houses or an increased number of smaller homes of which 50% are affordable."* Refer to Appendix E for extract.

1.10 NFNPA AND NFDC STRATEGIC FLOOD RISK ASSESSMENT

- 1.10.1. The NFNPA and NFDC commissioned JBA Consulting to produce an updated Level 1 Strategic Flood Risk Assessment (SFRA) in October 2017. The updated Level 1 SFRA (October 2017) is available on NFNPA's website². A Level 2 SFRA is currently only available for the NFDC.
- 1.10.2. The Level 1 SFRA states that *"there have been several recorded flood incidents across the study area, from a combination of sources."* The primary source of flooding (for the study area as a whole) is fluvial with a significant influence from tidal conditions. More recently flooding events have been associated with exceedance of the capacity of the sewer network.
- 1.10.3. High tides can result in tide locked conditions in which rivers are unable to discharge and backing up occurs causing higher water levels in rivers. Tidal defences can also fail or be overtopped. Coastal erosion is a prominent process along much of the study area coastline.
- 1.10.4. The Risk of Flooding from Surface Water (RoFSW) dataset indicates that surface water predominantly follows topographical flow paths of existing watercourses or dry valleys.
- 1.10.5. Historical incidents of flooding included in the SFRA have been collated by Southern Water and Wessex Water. This database records incidents of flooding relating to public foul, combined or surface water sewers and identifies which properties experienced flooding. It is noted that there are no historical incidents of flooding that have been recorded within the proposed Fawley Waterside site boundary.
- 1.10.6. Table 12.1 of the Level 1 SFRA (see Appendix G for SFRA extract) provides a summary of flood risk for each of the sites considered within the SFRA. Two of the sites fall within the Fawley Waterside site boundary. The table indicates that the proportion of the 'Land to the south of Fawley Power Station' site in Flood Zone 3a and

² http://www.newforestnpa.gov.uk/app/uploads/2018/03/2016s4908_New_Forest_SFRA_Phase_4_report_Main_report_v2_October_2017_1_.pdf

3b, at its existing level, would increase to 95% taking into the consideration the upper end climate change (predominantly sea-level rise / coastal flood event driven) allowance (+2115). The site 'Land at St George's Church, Calshot Village' is currently not located within Flood Zone 2 or 3 and future predictions indicate that this will not change. Site proposals include raising the development platform above the anticipated design extreme sea level thereby safeguarding the development against the effects of climate change over its design life.

2 SEQUENTIAL TEST

2.1 BACKGROUND

- 2.1.1. The Flood Risk and Coastal Change Planning Policy Guidance (PPG) advises that the aim of the Sequential Test is to ensure that areas at little or no risk of flooding are developed in preference to areas at higher risk; thereby guiding development towards those areas outside of Flood Zone 2 and 3, and areas affected by other sources of flooding where possible.
- 2.1.2. The PPG states that the Sequential Test should include evidence on the availability of 'reasonably available' sites in the relevant area with a lower flood risk that could be used for development.
- 2.1.3. Where there are no reasonably available sites in Flood Zone 1, local planning authorities in their decision making process should take account of the flood risk vulnerability of land uses and consider reasonably available sites in Flood Zone 2 (areas with a medium probability of river or sea flooding), applying the Exception Test if required. Only where there are no reasonably available sites in Flood Zones 1 or 2 should the suitability of sites in Flood Zone 3 (areas with a high probability of river or sea flooding) be considered, taking into account the flood risk vulnerability of land uses and applying the Exception Test if required.
- 2.1.4. The PPG and NPPF also advise that other forms of flooding, such as surface water and groundwater flooding, should be treated consistently with river flooding in mapping probability and assessing vulnerability to apply the sequential approach across all flood zones.

2.2 METHODOLOGY

- 2.2.1. The following methodology has been undertaken to inform the site selection process. A series of simple and logical steps has been followed to define the sites to be considered in the Sequential Test. The sites have been sequentially tested and ranked using JBA Consulting's SFRA modelling output to derive the Flood Zones, along with the Environment Agency's Risk of Flooding from Surface Water Flooding in order to further refine the Sequential Test results. Groundwater flood mapping (Areas susceptible to Groundwater flooding) has not been used in the ranking process because at 1 km² grid spacing its resolution is considered too coarse to rank the sites; none of which are greater than 74 ha in area and most of which are between 0.03 – 10 ha.

IDENTIFY THE SOURCE OF REASONABLY AVAILABLE SITES

- 2.2.2. It was agreed with the NFNPA that the most appropriate source from which to extract a list of reasonably alternative sites was from the 'Call for Sites' exercise that formed part of the Local Plan review work. The NFNPA provided WSP with a GIS dataset with the site boundaries from the 'Call for Sites' exercise in order to carry out the Sequential Test.

DEFINE THE GEOGRAPHICAL BOUNDARY

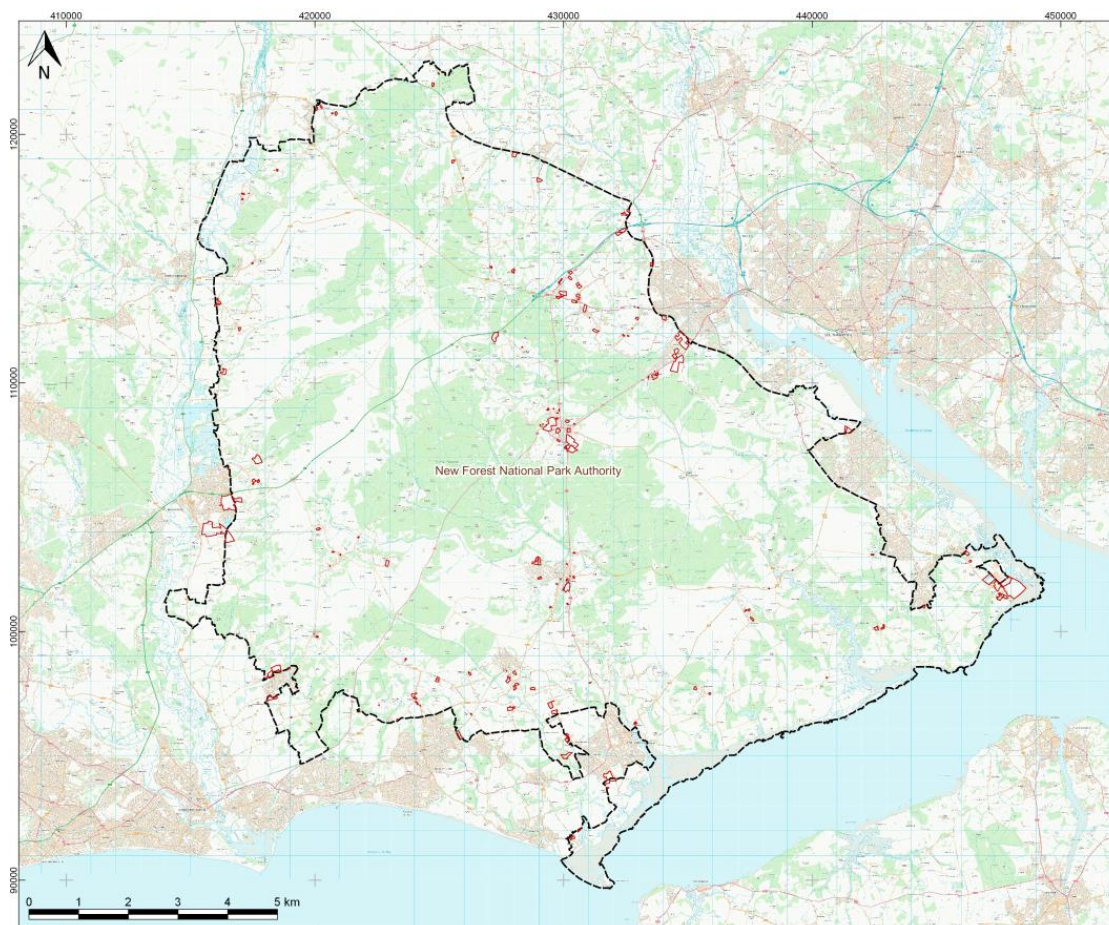
- 2.2.3. The National Park Authority determined that for the purposes of the Sequential Test the 'reasonably available sites' were the sites located within the NFNPA boundary (refer to Drawing No. 18569-LOC-001 in Appendix A for administrative boundary).
- 2.2.4. This approach is consistent with ID 7-033 in the PPG, which states that:

- i *"For individual planning applications where there has been no Sequential Testing of the allocations in the development plan, or where the use of the site being proposed is not in accordance with the development plan, the area to apply the Sequential Test across will be defined by local circumstances relating to the catchment area for the type of development proposed. For some developments this may be clear, for example, the catchment area for a school. In other cases it may be identified from other Local Plan policies, such as the need for affordable housing within a town centre, or a specific area identified for regeneration."*

SITES TO BE SEQUENTIALLY TESTED

- 2.2.5. The NFNPA's 'Call for Sites' exercise identified a total of 180 available sites existing within the National Park boundary. Figure 1 below provides an overview of the sites (the figure is also presented in Appendix A as Drawing No. 18569-LOC-002). The Fawley Waterside site is the easternmost site.

Figure 1 – Available sites within the National Park Boundary (Extract from Figure 18569-LOC-002 in Appendix A)



- 2.2.6. Prior to the application of the Sequential Test a review of the site boundaries was undertaken from the GIS data set provided by NFNPA. Correspondence with NFNPA was undertaken to resolve minor issues with site boundary geometries.
- 2.2.7. The nine sites screened out prior to Stage 1 of the SHLAA were removed from the GIS dataset along with three other sites which were disregarded following correspondence with NFNPA.
- 2.2.8. For the purposes of the Sequential Test the five individual parcels of land which are within the Fawley Waterside site boundary (refer to Appendix A for Drawing No. 18569-LOC-004) were then amalgamated and assessed together as one site. Therefore, the total number of individual sites included in the Sequential Test is 164. The names of the sites that fall within the Fawley Waterside site boundary are:
- ┆ Land at Calshot, 3.54 ha (Ref.146);
 - ┆ Fawley Quarry, 11.89 ha (Ref.22);
 - ┆ Tom Tiddler's Ground, 42.66 ha (Ref. 190);
 - ┆ Fawley Waterside Housing, 8.94 ha (Ref. 191); and
 - ┆ Stag Close, 6.75 ha (Ref. 14)
- 2.2.9. The total area of the Fawley Waterside side, as included in the Sequential Test is 73.78 ha.

SEQUENTIAL TEST CRITERIA

- 2.2.10. The principal criterion considered for the ranking of sites in the Sequential Test was the amount of each site falling in each of the fluvial / coastal flood risk zones (Flood Zones 1, 2 & 3). Measurement of the area within

each Flood Zone was undertaken using JBA Consulting's SFRA modelling outputs and a combination of QGIS and Microsoft Excel software.

- 2.2.11. The SFRA modelling output was initially processed to eliminate any overlap between each flood zone. The sites were then analysed to determine the percentage coverage by each of the flood zones. Sites were ranked according to the percentage of their area within Flood Zone 1, then Flood Zone 2 and finally Flood Zone 3. In this way, those sites with the lowest flood risk appear at the top of the list and those with the highest flood risk towards the bottom; the principle being that sites at the top of the list, with the lowest flood risk, should be preferentially developed.
- 2.2.12. Assessment of the percentage of coverage by areas at low, medium and high risk of surface water flooding on the Environment Agency's Risk of Flooding from Surface Water (RoFfSW) mapping was also undertaken as part of the Sequential Test. A plan showing the Environment Agency's Risk of Flooding from Surface Water³ is included for information in Appendix B (refer to Drawing No. 18569-EA-002).
- 2.2.13. A numerical value was applied to each Flood Zone (1, 2, 3a and 3b) from four to one and each Risk of Flooding from Surface Water area (1 in 30, 100 and 1000) from three to one. A value of four and three indicates the lowest risk of flooding. The values were multiplied by the percentage of site at risk from each Flood Zone and surface water risk area. A total score was calculated by subtracting the total surface water flood risk from the Flood Zone score in order to finesse the final ranking order, where sites were at equal risk of fluvial / coastal flooding.
- 2.2.14. For the final ranking order sites were arranged first by the main flood zone that each site was located in (worst case). Sites were then ranked by their total score incorporating the fluvial and surface water flood risk scoring system.

³ <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map?map=Reservoirs>

3 SEQUENTIAL TEST RESULTS

3.1 SUMMARY RESULTS

- 3.1.1. The site is located predominantly in Flood Zone 1 (68%) with smaller parts of the site being located in Flood Zones 2 and 3. Housing use is considered appropriate in Flood Zones 1 and 2 according to Table 3 of the NPPF PPG subject to application of the sequential approach (i.e. location of development in Flood Zone 1 followed by Flood Zone 2). Housing is also considered appropriate in Flood Zone 3a subject to the Exception Test being satisfied.
- 3.1.2. Application of the Sequential Test on the 164 sites using the SFRA modelling Flood Zones and the Environment Agency’s Risk of Surface Water Flooding datasets results in Fawley Power Station (site reference 200) being ranked 152nd out of 164 sites. Refer to Table 1 for an extract of the Sequential Test results including the Fawley Waterside site.
- 3.1.3. The combined Fawley Waterside has the largest site area out of all of the sites included in the Sequential Test at approximately 73.8ha (refer to paragraph 2.2.7 above for area breakdown). Of the 151 sites that were ranked above Fawley Waterside in the Sequential Test, the largest site, ‘Land at Foxhills’, is approximately 18.6ha and is ranked 137th. Only 12 of the 151 sites ranked above Fawley Waterside are considered to have potential for housing development but they are all deemed unsuitable for the type of development proposed at Fawley Waterside due to their size. Moreover, the Proposed Development at Fawley Waterside is acknowledged by NFNPA and NFDC as being required to support the proposals being put forward within the NFDC authority area.
- 3.1.4. On the basis of this evidence, the Fawley Waterside site provides the best opportunity to provide the type, size and scale of mixed use, marine-centred development being proposed.

Table 1 - Extract of Sequential Test results showing Fawley Waterside ranking (the Fawley Waterside site is highlighted red)

Rank	Site ID	Site Location	Area (ha)	Percentage of site within the Flood Zone (%)				Percentage of Site within RoFSW (%)		
				1	2	3a	3b	1 in 30 yr	1 in 100 yr	1 in 1000 yr
149	143	Clayhill Site	6.23	99%	0%	0%	0%	1%	1%	14%
150	35	Land off Ringwood Road	3.46	92%	1%	1%	6%	0%	0%	4%
151	153	Sadlers Farm Lower Pennington Lane	0.35	78%	1%	4%	16%	0%	0%	3%
152	200	Fawley Waterside Full Site	73.78	68%	4%	9%	19%	0%	0%	2%
153	149	Oak Bark Bend, Chapel Lane Burley	0.23	60%	3%	4%	32%	0%	0%	2%
154	165	Avon Valley Nurseries	3.12	59%	9%	32%	1%	0%	7%	37%
155	117	Garden Centre	1.85	61%	10%	15%	15%	5%	7%	22%



- 3.1.5. Refer to Appendix C for the full Sequential Test results. Note that the full Sequential Test table also includes information on whether each site lies within an area deemed susceptible to groundwater flooding although, as previously noted, this information has not been used to rank the sites because of its coarseness. The table also includes information on whether each site is located within a Flood Zone 3a when considering climate change.

4 NFNPA SITE SUITABILITY ASSESSMENT REVIEW

4.1 SITE SCREENING

- 4.1.1. As part of the commission to undertake a Sequential Test, WSP reviewed NFNPA's Strategic Housing Land Availability Assessment (SHLAA) to understand their site selection process.
- 4.1.2. The site screening employed a two stage approach to determine the suitability of sites. The first stage consisted of subjecting sites to an appraisal based on several key criteria which are listed below:
- 4.1.3. The general approach taken by NFNPA was that any site that that any sites within the areas listed below were rejected and not carried forward:
- ┆ Ancient Woodland;
 - ┆ Sites of Importance for Nature Conservation (SINC) in Hampshire;
 - ┆ County Wildlife Sites in Wiltshire;
 - ┆ Local Nature Reserves (LNR);
 - ┆ Sites of Special Scientific Interest (SSSI);
 - ┆ Special Protection Area (SPA);
 - ┆ Special Area of Conservation (SAC);
 - ┆ Ramsar Sites;
 - ┆ National Nature Reserves (NNR);
 - ┆ Regionally Important Geological Sites (RIGS);
 - ┆ Scheduled Ancient Monuments;
 - ┆ Sites on the Historic England Register of Historic Parks and Gardens; and
 - ┆ Flood Risk Zone 3 as defined by the latest Environment Agency maps.'
- 4.1.4. However, the SHLAA also states that '*the only exception is where the site forms part of a major development site where the 'exceptional circumstances' tests in paragraph 116 of the NPPF apply*'.
- 4.1.5. The second stage in the assessment consisted of a more detailed analysis in which each site was assessed to see whether it was found to be suitable, available and achievable.
- 4.1.6. A site was deemed to be suitable for housing development if it offers a suitable location for development and whether it is related to a village within the National Park with some local services and facilities. A site was deemed to be available through being put forward by the relevant landowners through the respective 'Call for Sites' process. A site was deemed achievable if it is deemed economically viable to develop the type of development on that particular site.
- 4.1.7. According to the NFNPA SHLAA '*these are the sites that relate well to the Submission draft Local Plan's proposed settlement hierarchy and are either within the Defined Villages or are being taken forward as proposed Local Plan site allocations.*'
- 4.1.8. The second stage covered a wider range of criteria with the aim to identify housing sites related to the larger more sustainable villages within NFNPA as well as close to services and facilities including:
- ┆ Landscape character;
 - ┆ Biodiversity;
 - ┆ Built environment;
 - ┆ Special qualities of the New Forest National Park;
 - ┆ Agricultural land classification;
 - ┆ Access to public transport;
 - ┆ Access to services and facilities;
 - ┆ Access;
 - ┆ Compatibility with surrounding uses;
 - ┆ Particular site constraints; and
 - ┆ Open space / recreational facilities
- 4.1.9. Appendix B of the SHLAA identifies the sites that are considered as having potential for housing development. Appendix C of the SHLAA identifies those which were rejected at Stage 1 and Stage 2.

4.2 NFNPA SUSTAINABILITY ASSESSMENT RESULTS

- 4.2.1. Of the 173 sites considered in NFNPA's SHLAA, a total 159 were filtered and / or screened out because they did not meet the critical criteria of the Local Plan Review (as outlined in Section 4.1).
- 4.2.2. The Fawley Waterside site did not meet the flood risk criteria of the Stage 1 screening process however it has been included within NFNPA's submission draft Local Plan because it will facilitate redevelopment of the Power Station site, can be designed to be protected against the existing and climate change scenario flood risk, and provides significant sustainability benefits.
- 4.2.3. NFNPA has also prepared a Sustainability Appraisal (SA) for the Draft Local Plan 2016 - 2036. The SA assesses five of the 14 sites included within NFNPA's SHLAA assessment against ten sustainability criteria. Scores were determined for each site, reflecting whether the impact of the action was likely to be positive, negative, neutral or uncertain. Two of the sites assessed 'Land adjacent to the former Fawley Power Station' and 'Land at Calshot Village' (SP25 and SP26) fall within the Fawley Waterside development boundary.
- 4.2.4. SP25 – Land adjacent to the former Fawley Power Station received:
- i a negative uncertain grading against SA Objectives 1 (conserve and enhance landscape and seascape), 2 (conserve and enhance conservation interests) and 3 (conserve and enhance built environment, heritage and culture);
 - i uncertain on SA Objective 4 (sustainable use of resources, enhance air and water quality, help mitigate climate change) and 8 (support local transport infrastructure);
 - i neutral on SA Objectives 5 (opportunities for special qualities) and 10 (ensure thriving land based economy);
 - i a positive uncertain on SA Objective 9 (facilitate sustainable economy); and
 - i a positive on SA Objectives 6 (access to services) and 7 (delivery of housing).
- 4.2.5. SP26 – Land at Calshot Village received:
- i a negative uncertain grading against SA Objective 1 (conserve and enhance landscape and seascape);
 - i uncertain on SA Objectives 3 (conserve and enhance built environment, heritage and culture), 4 (sustainable use of resources, enhance air and water quality, help mitigate climate change) and 8 (support local transport infrastructure);
 - i neutral on SA Objectives 5 (opportunities for special qualities), 9 (facilitate sustainable economy) and 10 (ensure thriving land based economy); and
 - i a positive on SA Objectives 6 (access to services) and 7 (delivery of housing).
- 4.2.6. Our high level assessment of the Fawley Waterside site against NFNPA's ten sustainability criteria indicates that under:
- i 'conserve and enhance conservation interests', the proposals for the Fawley Waterside site provide opportunities to protect nationally and internationally important wildlife sites in its vicinity, minimise impacts on local wildlife sites and create new wildlife habitats providing a net gain in biodiversity. Being a potentially contaminated site, missing the opportunity to develop the site could potentially represent a risk to wildlife.
 - i Regarding 'mitigating climate change', proposals for the site are to raise it out of the Flood Zone 2 and 3 areas thereby protecting the site from flood risk over its lifetime. The flood risk assessment will also include a surface water drainage strategy that proposes SuDS which will be designed to manage surface water runoff from the site up to and including the 1 in 100 (1%) annual probability scenario including the appropriate allowance for climate change⁴.
 - i Regarding 'conserve and enhance natural beauty of the landscape and seascape', the new heathland and coastal landscapes and enhanced woodland corridors will form components of a wider ecological network. Central to the development concept will be the integration of biodiversity into the new built environment. This will include provision for nesting birds such as House sparrow, Starling and Swifts and the creation of new roof-scapes to provide habitat for nesting coastal birds and other wildlife.

⁴ Climate change allowances will be taken from the Environment Agency's February 2016 publication: Flood risk assessments: climate change allowances (<https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>)

- 4.2.7. In summary, developing the predominantly brownfield Fawley Waterside site would be preferable over development of greenfield sites since it addresses multiple issues such as dealing with potentially contaminated land, putting previously developed land back into use, enhancing biodiversity, providing resilience against climate change and bringing significant economic and aesthetic benefits in the area. It also makes optimum use of the site's location by providing a mixed use development centred around a focal marine-based employment / leisure facility, the type of development that would be impossible to place on the majority of the other 163 sites considered by NFNPA.

4.3 EXCEPTION TEST

- 4.3.1. Because parts of the Fawley Waterside site are indicated to lie in Flood Zone 3 it will, as a potential housing site, be required to undergo the Exception Test. The first part of the Exception Test requires the Proposed Development to show that it will provide sustainability benefits that outweigh flood risk; the second part of the Exception Test will be met by a satisfactory Flood Risk Assessment that shows the Proposed Development will be safe from flood risk over its lifetime and will not increase flood risk on or off site.

5 CONCLUSIONS

5.1 CONCLUSIONS

- 5.1.1. WSP was commissioned by Fawley Waterside Ltd in March 2018 to perform a Sequential Test on potential allocation sites included in NFNPA's 'Call for Sites' exercise.
- 5.1.2. A total of 180 sites were included in the Call for Sites exercise, which forms part of the evidence base for NFNPA's Local Plan 2016-2036 review, and, following a filtering process (for repeated sites and sites not applicable to NFNPA) and an amalgamation process (to group five Fawley Waterside linked sites into one), 164 sites were left to include within the Sequential Test.
- 5.1.3. The sites have been sequentially tested by WSP using JBA Consulting's SFRA modelling output to derive the Flood Zones (Rivers and Sea), along with the Environment Agency's Risk of Flooding from Surface Water Flooding in order to further refine the Sequential Test results. It is acknowledged that the modelling has not been signed off by the Environment Agency at the time of writing however this is anticipated in the next 2 – 4 months. Currently the model output is assumed to be the latest and most up to date flood maps available for the NFNPA and NFDC administrative boundaries.
- 5.1.4. Groundwater flood mapping has not been used to rank sites because its resolution was considered too coarse. At 1 km² grid size (100 hectares) its use in the test, where no site is greater than 74 ha in area and most sites are between 0.03 – 10 ha, would distort the results.
- 5.1.5. Application of the Sequential Test using the SFRA Flood Zones and the Environment Agency's Risk of Flooding from Surface Water has resulted in the Fawley Waterside site (site reference 200) being ranked 152nd out of 164 in terms of flood risk.
- 5.1.6. Of the 151 sites ranked above Fawley Waterside, on the basis of the evidence presented in this report, none appear to be capable of providing the type, size and scale of development proposed at the Fawley Waterside site. Therefore, it is reasonable to conclude that the Fawley Waterside site provides the best opportunity for the mixed use, marine-centred development being proposed.
- 5.1.7. The Fawley Waterside site falls predominantly into Flood Zone 1 (68%) within the NFNPA administrative boundary, with smaller parts of the site falling into Flood Zones 2 (4%), 3a (9%) and 3b (19%). Housing, a 'More Vulnerable' use is considered appropriate in Flood Zones 1 and 2 according to Table 3 of the NPPF PPG subject to application of the sequential approach.
- 5.1.8. Stage 1 of NFNPA's Strategic Housing Land Availability Assessment (SHLAA) site selection process used 'key criteria' including flood risk to perform an initial screening of 173 sites. It is noted that nine of these sites were either approved planning applications, or located within the NFDC, or represented a SANG as part of a site where the residential element is located in the NFDC. Therefore the actual number of sites that were screened at Stage 1 was 164.
- 5.1.9. Nine of these 164 sites were screened out at Stage 1, including some that are deemed to be at lower risk of flooding than Fawley Waterside. Paragraph 4.19 of the NFNPA's Local Plan Review points to the reasoning behind this. It states that NFNPA has made provision in the Local Plan for development in the National Park to support the redevelopment of the brownfield site at the former Fawley Power Station site. NFNPA and NFDC commissioned a viability assessment which concluded that the redevelopment of the former Fawley Power Station could not come forward without some development on adjacent National Park land.
- 5.1.10. Stage 2 of NFNPA's assessment consisted of a more detailed analysis of the remaining 155 sites in which each site was compared against 11 sustainability criteria, resulting in 14 sites being selected as having the potential for housing development, including two parcels of land within Fawley Waterside boundary.
- 5.1.11. NFNPA has also prepared a Sustainability Appraisal (SA) report assessing five of the 14 sites from the SHLAA against ten sustainability criteria. Two of the sites are located within the Fawley Waterside site boundary.
- 5.1.12. The two parcels of land were graded negative on SA Objectives 1 (conserve landscape), 2 (conserve and enhance conservation interests) and 3 (conserve and enhance built environment, heritage and culture). However, the scores do not preclude the Fawley Waterside from potentially being identified by NFNPA as an allocation site. Instead it shows that NFNPA requires Fawley Waterside Ltd. to undertake sufficient further work to demonstrate that the site satisfies NFNPA's sustainability objectives.

- 5.1.13. Our preliminary assessment of the Fawley Waterside site indicates that the Proposed Development includes opportunities to protect nationally and internationally important wildlife sites in its vicinity, minimise impacts on local wildlife sites and create new wildlife habitats providing a net gain in biodiversity. Regarding climate change, measures exist to protect the site by raising it above the predicted design tide level, thereby protecting it from flood risk over its lifetime. Furthermore, the surface water drainage strategy for the site will incorporate SuDS which will be designed to cater for standard design flood events that include appropriate allowances for climate change⁵. New landscapes and enhanced woodland corridors will be proposed to enhance the environment, as will the integration of biodiversity into the development.
- 5.1.14. Parts of the existing site are indicated to lie within Flood Zone 3. If housing is proposed in Flood Zone 3 the Exception Test must be satisfied before it can be considered acceptable. Part one of the Exception Test will be satisfied by proposals that show the site will provide sustainability benefits that outweigh flood risk. Part two will be satisfied by a Flood Risk Assessment that demonstrates the Proposed Development will be safe from flood risk over its lifetime and will not increase flood risk on or off site.
- 5.1.15. In summary, developing the site addresses multiple issues such as dealing with potentially contaminated land, putting previously developed land back into use, enhancing biodiversity, providing resilience against climate change, and providing landscaping that contribute to enhancing local biodiversity. Furthermore, it will bring significant economic and aesthetic benefits in the area. On this basis it is considered there are no reasons why the site should not be brought forward for allocation.
- 5.1.16. Paragraph 4.19 of NFNPA's Local Plan Review indicates that NFNPA agrees with this by confirming that the Local Plan makes provision for development in the National Park to support the redevelopment of the brownfield site at the former Fawley Power Station site.

⁵ Climate change allowances will be taken from the Environment Agency's February 2016 publication: Flood risk assessments: climate change allowances (<https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>)