



Flood Risk Sequential & Exception Test

Land at Bedhampton Water Treatment Works, Meyrick Road, Havant, PO9 3HB

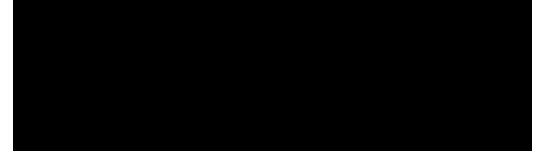
E101 HUB4 LTD

SHF.3055.001



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Flood Risk Sequential & Exception Test: Battery Energy Storage System on Land at Portsmouth Water Bedhampton Water Treatment Works, Meyrick Road, Havant, PO9 3HB.

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1.0 INTRODUCTION

1.1 Introduction

- 1.1.1 Enzygo Ltd (“the Agent”) has been instructed by E101 HUB4 LTD (“the Applicant”) to undertake a Flood Risk Sequential and Exception Test in accordance with the National Planning Policy Framework (“NPPF”)¹, the Local Development Plan² and Planning Practice Guidance³, to support a planning application submitted to Havant Borough Council (“LPA”) for the construction of a 150MWh battery energy storage facility at Land at Portsmouth Water Bedhampton Water Treatment Works (WTW), Meyrick Road, Havant PO9 3HB (application ref. APP/25/00351).
- 1.1.2 This Report is also supported by a Flood Risk Assessment (“FRA”) and Surface Water Drainage Strategy, which was submitted to the Council as part of the application submission pack.
- 1.1.3 The purpose of the Sequential Test (“ST”) is to steer new development to areas with the lowest probability of flooding as part of the planning process. The vast majority of the site is within Flood Zone 1, with the site entrance located within Flood Zones 2 and 3.
- 1.1.4 This report intends to demonstrate that a sequential, risk-based approach to the location of development has been undertaken, and that there are no ‘reasonably available’ sites appropriate for the proposed development in areas with a lower risk of flooding.
- 1.1.5 Furthermore, an Exception Test (“ET”) must also be carried out, due to the development constituting “essential infrastructure” which is not capable of being located in areas with a lower risk of flooding. The ET is supported by the FRA and seeks to demonstrate the development has wider and significant sustainability benefits to the community that outweighs the very limited flood risk and will be safe for its lifetime without increasing flood risk elsewhere.

1.2 Policy Context & Guidance

- 1.2.1 To inform this Report, the respective provisions contained within the following policy and guidance documents have been referred to:
- The National Planning Policy Framework (December 2024)
 - Planning Practice Guidance: Flood Risk and Coastal Change (updated August 2022)
 - The Havant Local Plan (Core Strategy 2011) (Site Allocations Plan 2014)
- 1.2.2 Further information regarding the key provisions which relate to the requirement for the application of the ST and ET are explored below.

The National Planning Policy Framework (December 2024)

- 1.2.3 The NPPF sets out the national policy context for the consideration of flood risk. It requires Local Authorities and those who are responsible for development decisions to demonstrate that in preparing development plans that they have taken full account of present and future flood risk.

¹ Department for Communities and Local Government (December 2024) Revised National Planning Policy Framework.

² Havant Local Plan (adopted March 2011)

³ Planning Practice Guidance: Flood Risk and Coastal Change (Updated August 2022)

- 1.2.4 Paragraphs 170-182 of the NPPF pertain specifically to planning and flood risk. These paragraphs make clear that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas that are exposed to the highest risk.
- 1.2.5 Specifically, Paragraph 172 states that plans should apply a sequential, risk-based approach to the location of development, which should be done through a Sequential Test (ST), followed by an Exceptions Test (ET) if necessary.
- 1.2.6 As stated in Paragraph 174, the aim of the ST is to direct new development towards areas of the lowest flood risk. It confirms that development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.
- 1.2.7 This does not state that developments cannot be undertaken on areas of high flood risk. The provisions of Paragraph 177 of the NPPF clearly stipulate that if it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the ET may have to be applied, depending on the potential vulnerability of the site and of the development proposed.
- 1.2.8 The application of the ET, as confirmed in Paragraph 178, should be informed by a strategic or site specific flood risk assessment, and should demonstrate that it would provide wider sustainability benefits to the community that outweighs the flood risk, and would 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. Both those elements should be satisfied for development to be permitted.

Planning Practice Guidance: Flood Risk and Coastal Change

- 1.2.9 The PPG makes it clear that the ST should be applied to 'Major' and 'Non-major development' proposed in areas at risk of flooding. For individual planning applications subject to the ST, the area to apply the test will be defined by local circumstances relating to the catchment area for the type of development proposed. It goes on to state that where there are large areas in Flood Zones 2 and 3 (medium to high probability of flooding) and development is needed in those areas to sustain the existing community, sites outside them are unlikely to provide reasonable alternatives.
- 1.2.10 Regarding what constitutes a 'reasonably available' site for the purposes of the ST, the PPG confirms that 'reasonably available sites' are those in a suitable location for the type of development, with a reasonable prospect that the site is available to be developed at the point in time envisaged for the development. These could include a series of smaller sites and/or part of a larger site if these would be capable of accommodating the proposed development. Such lower-risk sites do not need to be owned by the applicant to be considered 'reasonably available'.
- 1.2.11 With regard to the ET, the PPG states that this should only be applied following application of the ST and where it has been demonstrated that it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives).

- 1.2.12 When confirming whether the sustainability benefits to the community outweigh the flood risk, such benefits need to be balanced against any associated flood risks, informed by the site-specific flood risk assessment.
- 1.2.13 The impacts of flood risk on social, economic and environmental factors should be considered.
- 1.2.14 Furthermore, when demonstrating that the development will reduce flood risk overall, it is confirmed that developers should refer to the Strategic Flood Risk Assessments and site-specific Flood Risk Assessments to identify opportunities to reduce flood risk overall and to demonstrate that the measures go beyond just managing the flood risk resulting from the development. Providing Sustainable Drainage Systems that manage flood risk beyond the proposed site and above the usual standard is a good example of achieving such reductions.

The Havant Borough Core Strategy (adopted March 2011)

- 1.2.15 Policy CS15: 'Flood Risk and Coastal Erosion Risk' of the Havant Borough Core Strategy confirms that development in areas at risk of flooding now and in the future as identified on the latest Environment Agency flood risk maps and Strategic Flood Risk Assessment climate change maps will only be permitted where it meets the sequential and exception test (where required).
- 1.2.16 The site is adopted as Safeguarded for Infrastructure under policy CS19 of the adopted Havant Borough Core Strategy. It is considered a BESS would complement the aims of Policy CS19, whilst enabling energy balancing within proximity of an identified Point of Capacity, with sufficient and available capacity.

1.3 Report Structure

- 1.3.1 This report has the following structure:
- Section 2 identifies the sources of information that have been consulted to inform this Report;
 - Section 3 describes the site and proposed development;
 - Section 4 outlines the sequential methodology;
 - Section 5 applies the Sequential Test and the Exception Test; and
 - Section 6 presents the conclusions.

2.0 SOURCES OF INFORMATION

2.1 Sources of Information

- 2.1.1 In addition to the relevant local and national policy documents and guidance highlighted in the above section, the preparation of this Report and the methodology contained within has utilised various sources of information.
- 2.1.2 The FRA & Surface Water Drainage Strategy, which has been submitted in support of the application, is the primary document demonstrating the impact that the development would have on flood risk grounds. Section 2.1 of the FRA contains a full scope of the sources of information which were consulted in preparation of the report and therefore aren't required to be repeated here.
- 2.1.3 Furthermore, the sequential methodology which has been applied in this report regarding the assessment of alternative sites that may be considered 'reasonably available' has utilised several sources of information, these include the following:
- The Adopted Havant Borough Core Strategy (2011)
 - Building a Better Future Plan (2025) (Emerging Havant Borough Local Plan)
 - The Council's Strategic Housing Land Availability Assessment
 - The Council's Brownfield Register
 - The Council's Business and Industrial Land Schedule
 - Zoopla
 - Rightmove
 - OnTheMarket
 - Searchland
- 2.1.4 Overall, it is considered that the contents of this report are supported by robust and reliable information sources. The application of the above-referenced resources is explored in greater detail in Section 4 of this report whereby the sequential methodology and assessment of potential 'reasonably available' sites is elaborated upon.

3.0 THE SITE & PROPOSED DEVELOPMENT

3.1 Existing Site Context

- 3.1.1 The site is located within the administrative boundary of Havant Borough Council (HBC) and is a parcel of land at Portsmouth Water Bedhampton Water Treatment Works, Meyrick Road, Havant PO9 3HB. The grid reference is x: 4705033 y: 106310.
- 3.1.2 The red line application area is circa 2.5 acres/1 hectare, which is shown on the Proposed Site Location Plan (reference no. DACI-4402-E03-REV08), and Figure 1 below.

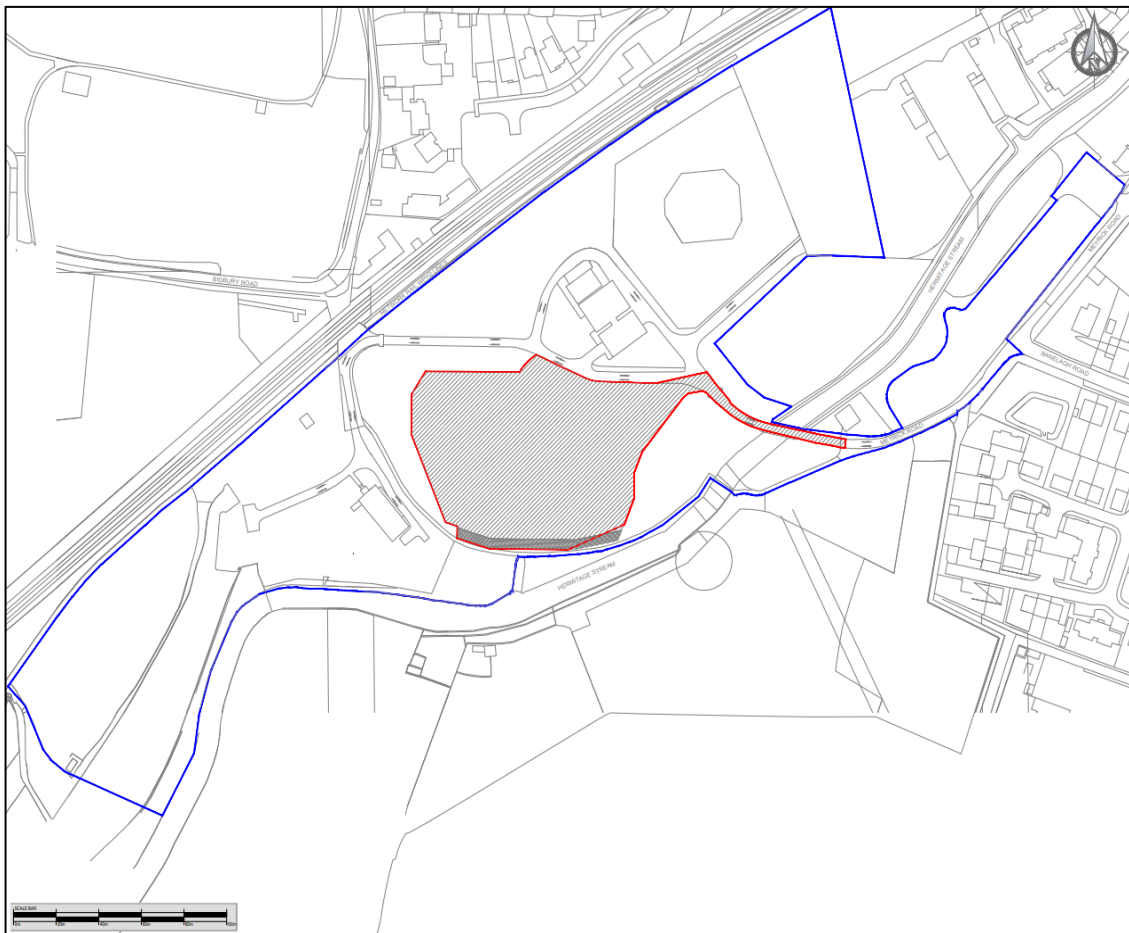


Figure 1: Site Location Plan (dwg ref. DACI-4402-E03-REV08)

- 3.1.3 The site constitutes made ground and is part of the wider Portsmouth Water Bedhampton WTW. Buildings associated with the water treatment works are located to the immediate north, alongside ground mounted solar panels. The northern boundary is adjacent to an internal road and features an intermittent hedgerow. The Bedhampton railway line lies beyond the site to the north and benefits from mature tree and hedgerow screening. Beyond the railway line is residential development. The JDP Havant pipe supplier's storage yard is located to the east, and the Hermitage Stream runs adjacent to the southern site boundary.
- 3.1.4 The settlement of Bedhampton lies approximately 0.6km to the north, with Portsmouth located c.8.5km south west of the site.

- 3.1.5 The nearest dwellings to the proposed site are located approximately 40m to the north off King's Croft Lane, beyond the heavily trafficked Bedhampton railway line. The northern site boundary features mature vegetation located on an embankment which offers natural screening to the site from the residential dwellings.
- 3.1.6 Access to the site, including construction traffic, will be taken via an internal road off Meyrick Road, which lies on the eastern site boundary and is the existing access arrangement for the waterworks.
- 3.1.7 Meyrick Road adjoins to the A27 Havant Bypass via Ranelagh Road and Brockhampton Road. This provides links to the wider strategic road network including the M27 (approximately 5.5km southwest of the site).
- 3.1.8 Following construction of the BESS, this access route will be used for maintenance vehicles for the lifetime of the battery storage, which are typically no more than fortnightly maintenance visits. The maintenance vehicles will predominantly be Transit van sized vehicles, that shall have no adverse impact upon the local highway network.

3.2 Proposed Development

- 3.2.1 The development is for the provision of a battery energy storage system. Energy storage is the retention of energy produced at one time for use at a later time; the BESS would draw energy from the Grid when demand is low, and supply is high and store it for release when required in periods of higher demand.
- 3.2.2 The site layout shows the site would include the following key elements:
- 132kV Switchyard
 - 132/33kV Power Transformer
 - DNO Protection / Control Room
 - Private 33kV Switchroom
 - Private Control Room
 - Private 33/0.4kV Auxiliary Transformer
 - Private Stores / Metering / Welfare Building [max 2.44m x 6.1m x max. height of 3m above ground]
 - 2.4m Palisade Fence
 - 3.5m Acoustic Fencing
 - 30 units of BESS containers
 - 15 units of Power Conversion System / Transformers
 - Parking for maintenance vehicles
 - CCTV Equipment

- Site Lighting

- 3.2.3 Site access and internal service roads leading into the site compound are already established on the Portsmouth Water site and will provide safe access for the short construction phase of the project. This utilises the existing site access off Meyrick Road.
- 3.2.4 Once construction has been completed, access to the site for ongoing maintenance vehicles will take place via the existing site access into the Portsmouth Water facility. There will be limited traffic movements, with only scheduled monthly maintenance visits to the site.
- 3.2.5 The Point of Connection (PoC) between SSEN and the proposed BESS will be made via existing dual 132kV underground circuits located within the wider development site's land ownership.
- 3.2.6 This PoC will sit between two major Grid Supply Points (GSPs) - Lovedean and Havant GSP. This capability will essentially provide backup / stored energy that can be deployed in either direction to support the wider electrical distribution and transmission networks where required.
- 3.2.7 The batteries are installed within insulated containers / modules set on individual concrete pads and have very low levels of noise pollution. Downward oriented motion activated lighting will be provided on each container, the welfare building, private substation and the DNO room, in case of emergency out of hours maintenance visits.
- 3.2.8 Please refer to the submitted Planning Statement for further information regarding the site context and proposed development.

3.3 Development Site Flood Risk

- 3.3.1 As highlighted in this Report, an FRA has been undertaken which confirms the following:
- The Environment Agency Flood Zone mapping (Drawing 003) shows the Site is in Flood Zone 1, which is land outside the 1 in 1000-year (1% AEP) risk of fluvial flooding, at high risk.
 - The Site entrance is located within Flood Zones 2 and 3. Flood Zone 2 is land between the 1 in 100-year (1% AEP) and 1 in 1000-year (0.1% AEP) probability of fluvial flooding, at medium risk. Flood Zone 3 is land within the 1 in 100-year (>1% AEP) risk of fluvial flooding, at high risk.
 - The risk of fluvial flooding is assessed as negligible.
 - The risk of tidal flooding is assessed as negligible for most of the Site and medium along the southeastern boundary.
 - The risk of groundwater flooding is assessed as high for the entire Site.
 - The risk of surface water flooding is assessed as negligible for most of the Site and low along surface water flow pathways and ponding.
 - The risk of flooding from sewers is assessed as negligible for most of the Site and low along the reaches of the identified assets.
 - The risk of flooding from all other sources is assessed as negligible.

3.4 Mitigation & Drainage Measures

- 3.4.1 To ensure that all sources of flood risk are mitigated to a negligible or low and acceptable level, the following mitigation measures and drainage featured will be incorporated:
- Provide an 8m easement free from development along the side of Hermitage Stream. This easement would provide access for inspection and maintenance purposes, including vehicle access.
 - Set the surface water outfall from the proposed development at an appropriate height, i.e. above the 1 in 100-year+51%CC flood level (5.53m AOD).
 - Set vulnerable electrical equipment a minimum of +150mm above the modelled 1 in 100-year 51%+CC flood level.
 - Adoption of a surface water management strategy.
 - Fit outfall with flapped outfalls to avoid surcharging in a flood event and allow surface water to still discharge.
 - Lined attenuation to prevent groundwater ingress.
 - Sequentially develop the site, limiting the built development outside the mapped extent of surface water flooding associated with overland flow pathways.
 - Provide a development free easement (3m either side) of onsite Southern Water sewer assets, or re-direct around the Site boundary.
- 3.4.2 Overall, it is concluded that the proposed development would be operated within minimal risk from flooding and would not increase flood risk elsewhere and is therefore compliant with the requirements of national policy and guidance.

4.0 THE SEQUENTIAL METHODOLOGY

4.1 Introduction

- 4.1.1 To inform the ST, this section of the Report intends to provide the LPA with the overall methodology involved in assessing whether there are any alternative sites in areas of lower flood risk which may be 'reasonably available' for development. Following this, any sites which have been identified are assessed individually as to whether they would be appropriate for the proposed development.
- 4.1.2 Firstly, it is necessary to set out the parameters of the methodology with regards to site selection. The respective PPG is clear that there are no set parameters on what constitutes a reasonable search area for BESS developments. It must be acknowledged that there is no policy guidance to support any given methodology, and each case should be considered on its own merits, taking account of the operational constraints.
- 4.1.3 This section of the Report will therefore address the following:
- Defining the search area and site suitability criteria.
 - Assessing whether there are any potential 'reasonably available' sites within the search area.
 - Assessing whether any potential 'reasonably available' sites would be appropriate for the proposed development.

4.2 Search Area & Site Suitability Criteria

- 4.2.1 The flood risk elements associated with development sites are one of many considerations when deciding whether a site would be suitable for development. However, given that the development site is predominantly in Flood Zone 1, with the site access located in Flood Zone 2 and Flood Zone 3, it is considered that any alternative site must be located entirely within Flood Zone 1 for it to be considered a 'reasonable alternative' in respect of flood risk.
- 4.2.2 Other factors which need to be considered for finding a suitable BESS site are discussed in turn below.

Grid Connection

- 4.2.3 Connectivity to the grid is the absolute essential requirement of a development of this nature, as without a suitable and available connection to the National Grid, there can be no project. Therefore, once a Point of Connection (POC) has been agreed, any future development site of this size and scale must be located within approximately 2.5km of the POC. Distances beyond this distance would result in a severe drop off in efficiency and viability due to increased infrastructure costs and transmission losses.
- 4.2.4 The POC (PoC) between SSEN and the proposed BESS will be made via existing dual 132kV underground circuits located within the Portsmouth Water landownership. This POC will sit between two major Grid Supply Points (GSPs) - Lovedean and Havant GSP.

- 4.2.5 Because grid connection and distance from the POC is the key consideration as to whether site is suitable for a BESS, the defined search area is therefore limited to 2.5km around the POC. This defined search area is shown in Appendix A, Figure 1.

Site Availability and Deliverability

- 4.2.6 The site must be available for the duration of the proposed temporary lifespan (30 years) and have a willing landowner. A site is considered available for development when, on the best information available at the time, we are confident that there are no issues, such as legal or ownership problems that would stop development happening. This requires commitment from the landowners in the form of a legal agreement and ensuring the correct rights over any other land required (e.g. for access) are secure.
- 4.2.7 Notably, a project can only be brought forward with the agreement of the landowner, of which with regard to the proposed development, all necessary legal agreements are in place so the land is secured, is available and can be delivered.

Compatible Neighbouring Uses and Land Use Allocations

- 4.2.8 BESS developments should not be located near to any incompatible neighbouring uses, with due regard given to the proximity of developments to the built-up parts of settlements and large residential areas, particularly to reduce impacts associated with visual amenity and noise.
- 4.2.9 It is also considered that any area of land within the search area which is subject to a land use allocation, particularly for employment land or housing, should not be considered suitable for development as an alternative higher value land use has been identified for the land and is required to achieve the strategic growth objectives of the adopted Local Plan. The development of a BESS within areas subject to such allocations would undermine the objectives of those strategic sites and would be contrary to the respective planning policies.
- 4.2.10 Considering the above, it is noted that within the 2.5km search radius, there are several built-up areas. Accordingly, there are 10 adopted housing allocations within the 2.5km search radius, to the north east and west of the point of connection. It is also noted that there are 4 adopted employment allocations within the 2.5km search radius including Kingscroft Farm to the immediate southeast of the site, allocated for 12,000 square metres of new manufacturing and/or warehousing floorspace. There are 10 adopted mixed-use land allocations within the search radius, to the west of the point of connection. The built-up areas and the aforementioned allocated land are therefore discounted as suitable land for the proposed BESS development within the defined search area.
- 4.2.11 Importantly, the chosen development site is located away from the built-up extent of nearby settlements, away from large residential areas, and has no impact on any nearby land use allocations.

Landscape & Visual Considerations

- 4.2.12 Selecting a site which is capable of being developed with an acceptable level of landscape and visual impacts is a key consideration. In this instance, the chosen development site is considered not to result in a detrimental degree of landscape and visual harm, the site is low lying, and flat in nature, where minor undulations in the wider landform create effective visual screening.

- 4.2.13 Accordingly, a Landscape and Visual Impact Assessment and a Strategic Landscape Mitigation Plan have prepared in support of the planning application, which collectively confirm that the chosen development site can assimilate into the local landscape from a landscape and visual perspective.

Agricultural Land Classification

- 4.2.14 Best and Most Versatile (BMV) Agricultural Land is defined as Grades 1, 2, and 3a and is defined in the National Planning Policy Framework (NPPF) as the land, which is most flexible, productive, and efficient in response to inputs, and which can best deliver future crops. It is noted that development should, where possible, seek to avoid land which is designated as BMV land.
- 4.2.15 Land within the 2.5km search area is Grade 1, Grade 2, Grade 3 land, and land not currently in agricultural use. Therefore, land within the 2.5km area has the capability to be BMV land. For the purpose of this Sequential Test, Grade 1 and Grade 2 land within the 2.5km search area will be discounted. Grade 3 land cannot be confirmed as either sub-grade 3a (BMV) or 3b without detailed soil testing. As such, Grade 3 will not be discounted from the Sequential Test site search.

Heritage

- 4.2.16 The impact of a development on designated heritage assets is of paramount importance when picking a suitable development site. Notably, the chosen development site does not contain any Listed Buildings and is not located within or near to a Conservation Area. Within a 1km buffer of the site, there are twenty designated heritage assets. A Heritage Impact Assessment has been submitted with the application which confirms the proposed development is considered to have a neutral effect on the historic environment.

Ecology

- 4.2.17 Determining the sensitivity of a potential development site from an ecological standpoint is one of the most crucial considerations for BESS applications.
- 4.2.18 The chosen development site lies within an area of Uncertain Sites Brent Geese and/or Waders, in the Havant Local Plan. The Solent Waders and Goose Strategy is a non-statutory document presenting evidence, analysis, and recommendations to inform decisions relating to strategic planning as well as individual development proposals. The strategy is related to internationally important Brent Goose and Wading Bird populations within and around the SPAs and Ramsar wetlands of the Solent Coast.
- 4.2.19 The Solent Waders and Goose Strategy does not identify the proposed development site as part of the network of habitat which demonstrates the site is not part of the functioning habitats for the identified birds.
- 4.2.20 An Ecological Impact Appraisal (EclA) has been undertaken to identify potential ecological constraints and associated recommendations to avoid / mitigate/ compensate for the potential impacts.
- 4.2.21 It is concluded that the proposal presents opportunities for biodiversity enhancement to achieve an overall biodiversity net gain in accordance with national and local policies, through the provision of enhanced opportunities for nesting birds and roosting bats, and landscape planting.

- 4.2.22 The EclA demonstrates that, if the outlined mitigation measures are implemented in full then no significant residual impact could be expected, and the proposed development will result in 'no net loss in biodiversity,' whilst also providing 'biodiversity net gain' in accordance with NPPF and Local Planning Policy.

Suitable and Safe Access

- 4.2.23 Having suitable and safe road access is essential in selecting a suitable site. This is important as roads must be of a sufficient width to allow the development to be built out given that deliveries of the equipment will be undertaken by HGV vehicles, as outlined in the Transport Statement and Construction Traffic Management Plan.
- 4.2.24 Access to the site, including construction traffic, will be taken via an internal road off Meyrick Road, which lies on the eastern site boundary and comprises the existing access arrangement for the waterworks.
- 4.2.25 Meyrick Road adjoins to the A27 Havant Bypass via Ranelagh Road and Brockhampton Road. This provides links to the wider strategic road network including the M27 (approximately 5.5km southwest of the site).
- 4.2.26 Following construction of the BESS, this access route will be used for maintenance vehicles for the lifetime of the battery storage, which are typically no more than fortnightly maintenance visits. The maintenance vehicles will predominantly be Transit van sized vehicles, that shall have no adverse impact upon the local highway network.
- 4.2.27 The proposed development is not expected to have a detrimental impact on this, particularly once operational, as it will result in negligible traffic generation, and accordingly the access is entirely suitable for the short construction period (8 - 10 months).

4.3 Other Potential Reasonably Available Sites

- 4.3.1 As specified above, Paragraph 174 of the NPPF confirms that development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. It is therefore necessary to undertake a sequential analysis of potential sites within the 2.5km search area around the POC.
- 4.3.2 Firstly, it is necessary to identify the non-suitable land within the search area which is discounted for potential development sites. Please refer to Appendix A, Figure 2 which shows the POC and 2.5km search area in addition to land which is considered unsuitable. As confirmed in the above section, this area constitutes the extent of the main built-up areas of the settlement, including areas of woodland and residential land, areas covered by Grade 1 and Grade 2 agricultural land, areas within Flood Zone 2 and 3, and land subject to housing, employment and mixed-use allocations.
- 4.3.3 To substantiate the above referenced policy designations, housing and employment allocations, please refer to Appendix A, Figure 3 which shows the search area overlain on the adopted planning policy map.
- 4.3.4 The PPG confirms that 'reasonably available sites' are those in a suitable location for the type of development with a reasonable prospect that the site is available to be developed at the point

in time envisaged for the development. These could include a series of smaller sites and/or part of a larger site if these would be capable of accommodating the proposed development. Such lower-risk sites do not need to be owned by the applicant to be considered 'reasonably available'.

- 4.3.5 To understand whether a site would be reasonably available, the land must be available for lease or purchase, in addition to meeting the operational requirements of the developer. It is therefore necessary to undertake an online search to assess whether there is any land approximately 1 hectare and above in size within the 2.5km boundary on the open market.
- 4.3.6 Several online sites, including Zoopla, Rightmove and OnTheMarket were consulted and reviewed, of which none had any land within the 2.5km search area presently available of a suitable size, confirming that there is no land currently available for sale or rent within a 2.5km radius of the POC that would be suitable for the proposed development.
- 4.3.7 The final task in assessing the likelihood of a site being available and developable is by consulting the Council's Strategic Housing Land Availability Assessment (2024) ("SHLAA"). Whilst this is a database of land which has been put forward by landowners for residential developments, it still provides an indication of land which is capable of being both available and developable, and therefore potentially 'reasonably available'.
- 4.3.8 From reviewing the SHLAA, there are 17 sites within the 2.5km search area which were put forward by landowners and are potentially available for development. These include:
- WA14 – South Downs College Car Park
 - WA15 – Campdown
 - HA09 – Oak Park School (south west part)
 - HA10 – Oak Park School (main site)
 - HA14 – Palk Road
 - HA15 – Belmont Castle Rest Home
 - HA17 – Land at the western end of Lower Road
 - HA20 – Kingscroft Farm
 - HA21 – Portsmouth Water Headquarters
 - LP03 – Land West of Hulbert Road
 - LP05 – Dunsbury Way
 - LPO6 – Former Dairy Crest Depot
 - LP07 – Former Electricity Board, Bartons Road
 - ED17 – Langstone Park
 - BL1 – Havant Town Centre

- BL2 – Civic Campus Broad Location
- BL2 – Leigh Park Town Centre Broad Location

- 4.3.9 All 17 of the identified SHLAA (2024) sites listed above are identified as draft allocations in the Emerging Local Plan (Building a Better Future Plan 2025). These constitute housing, employment and mixed-use allocations. Consequently, all the sites identified within the SHLAA (2024) have been discounted, as they are not considered suitable or available for the proposed development.
- 4.3.10 Following the application of the agreed methodology, 17 sites located within Flood Zone 1 have been identified as 'reasonably available' sites (refer to Figure 2).

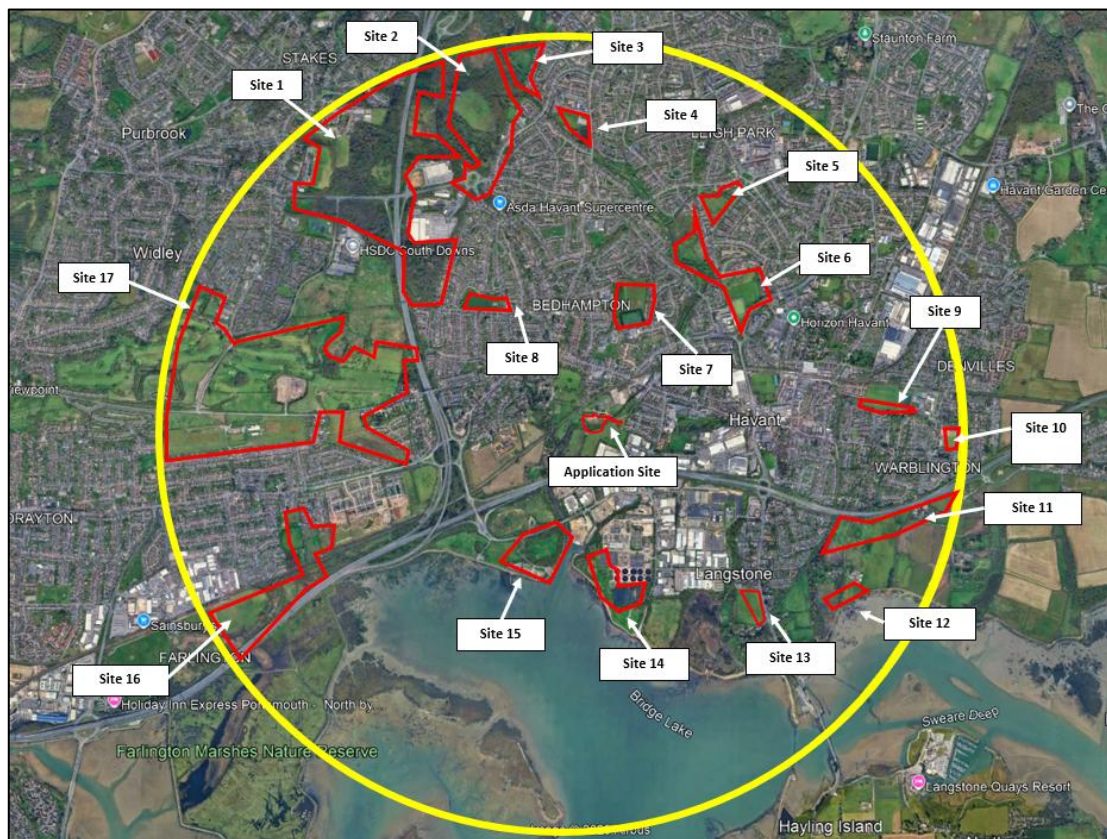


Figure 2: Potential reasonably available sites for development

- 4.3.11 The 17 identified alternative development sites are as follows:

- Site 1: Land to the east of Stakes Hill Road
- Site 2: Land at Neville's Park
- Site 3: Land to the west of Ramsdale Avenue
- Site 4: Land adjacent to Ramsdale Avenue
- Site 5: Land to the east of Riders Lane
- Site 6: Land at Stockheath Lane

- Site 7: Land to the west of Hooks Lane
- Site 8: Land to the north of Scratchface Lane
- Site 9: Land to the south of School Lane
- Site 10: Land to the west of Warblington Avenue
- Site 11: Land to the south of the A27 (Havant Bypass)
- Site 12: Land to the north of Solent Way
- Site 13: Land to the west of Langstone Road
- Site 14: Land to the east of Solent Way
- Site 15: Land to the south of Harts Farm Way
- Site 16: Land to the north of A27 (Havant Bypass)
- Site 17: Land to the east of Crookhorn Lane

5.0 THE SEQUENTIAL AND EXCEPTION TESTS

5.1 Introduction

- 5.1.1 Following the above assessment, it is therefore necessary to apply both ST and ET, in accordance with Paragraphs 172-179 of the NPPF. This is undertaken below.

5.2 The Sequential Test

- 5.2.1 As specified earlier in this Report, all plans should apply a sequential, risk-based approach to the location of development by applying the ST. The aim of the ST is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.
- 5.2.2 To comply with the objectives of the ST, 17 sites have the potential to be available for development and have been identified using the online sources set out in the methodology. These sites are now subject to individual assessment to determine their suitability for the proposed development to determine whether they would be appropriate for the proposed development.
- 5.2.3 Table 1 lists the 17 sites shown in Figure 3, and their suitability for a reasonably alternative site for the proposed development.

Table 1: Potentially Available Sites

Alternative Site	Site Boundary	Assessment	Suitability
Site 1: Land to the east of Stakes Hill Road Grid Ref: SU 69057 07577		The site is large enough for the development measuring 62 hectares. The site encompasses multiple land parcels, under various ownerships. It includes playing fields in the northwest, which are associated with Havant Athletic Club and Crookhorn College. Additionally, the site is designated as a Site of Importance for Nature Conservation (SINC). The site is therefore not suitable or available for development.	Not suitable
Site 2: Land at Neville's Park Grid Ref: SU 69794 08662		The site is large enough for the development measuring 39 hectares. The site lies within a Site of Importance for Nature Conservation (SINC) within the adopted Local Plan (Policy CS11) and is therefore not suitable for development.	Not suitable

Site 3: Land to the west of Ramsdale Avenue Grid Ref: SU 70046 08590		The site is large enough for the development measuring 4 hectares. The site is located to the immediate west of residential properties on Ramsdale Avenue, with the southwestern portion consisting of Ancient Woodland. The site is therefore not considered suitable for development.	Not suitable
Site 4: Land adjacent to Ramsdale Avenue Grid Ref: SU 70382 08116		The site is large enough for the development measuring 3.20 hectares. The site constitutes Active Kids Community Sports Park at Park Community School, featuring playing fields and a football pitch. The site is therefore not suitable or available for development.	Not suitable
Site 5: Land to the east of Riders Lane Grid Ref: SU 71270 07688		The site is large enough for the development measuring 3.10 hectares. The site is allocated in the Local Plan as a Local Green Space -Stockheath Common (Policy AL8) and is therefore not suitable or available for development.	Not suitable
Site 6: Land at Stockheath Lane Grid Ref: SU 71465 07113		The site is large enough for the development measuring 7.60 hectares. The site lies within several land titles, under multiple ownerships. The southern parcel of land features the Havant Hockey Club hockey pitch and is therefore not suitable or available for development.	Not suitable
Site 7: Land to the west of Hooks Lane Grid Ref: SU 70756 07052		The site is large enough for the development measuring 5.30 hectares. The site constitutes several football and rugby pitches at Havant Rugby Club and is therefore not suitable or available for development.	Not suitable

Site 8: Land to the north of Scratchface Lane Grid Ref: SU 69823 07030		The site is large enough for the development measuring 2.50 hectares. The site constitutes recreational land at Scratchface Lane Playground and lies to the immediate north, east and west of residential properties. A small electricity substation on the southern boundary of the site, adjacent to Scratchface Lane. The site is therefore not suitable for development.	Not suitable
Site 9: Land to the south of School Lane Grid Ref: SU 72412 06398		The site is large enough for the development measuring 1.30 hectares. The site lies within the grounds of Warblington School, featuring school playing fields and football pitches, and is therefore not suitable or available for development.	Not suitable
Site 10: Land to the west of Warblington Avenue Grid Ref: SU 72732 06211		The site is not large enough for the development measuring 0.95 hectares and is therefore not suitable.	Not Suitable
Site 11: Land to the south of the A27 (Havant Bypass) Grid Ref: SU 72548 05749		The site is large enough for the development measuring 13.77 hectares. The site falls within several land titles, under multiple ownerships. Pook Lane Riding Centre lies within the northeastern portion of the site. The site is therefore not suitable or available for development.	Not suitable
Site 12: Land to the north of Solent Way Grid Ref: SU 72287 05317		The site is not large enough for the development measuring 0.97 hectares and is therefore not suitable.	Not suitable

Site 13: Land to the west of Langstone Road Grid Ref: SU 71564 05164		The site is large enough for the development measuring 1.05 hectares. The site is located within a Strategic Flood Risk Assessment – expected flood risk area @ 2115, and a site for Brent Geese and Waders - under Policies CS11 DM23 and is therefore not considered suitable for development.	Not suitable
Site 14: Land to the east of Solent Way Grid Ref: SU 70645 05330		The site is large enough for the development measuring 5.60 hectares. The site is allocated as an Important Site for Brent Geese and Waders (Policy CS11) (Policy DM23). The Solent Waders and Goose Strategy identifies the southern extent of the site as part of the network of habitat, as a Primary Support Area which is functionally linked to the designated SPAs. The site is also located to the immediate north and east of the Chichester and Langstone Harbour Special Protection Area (SPA), Langstone Harbour Site of Special Scientific Interest (SSSI) and Solent Maritime (SAC). The site is therefore not suitable or available for development.	Not suitable
Site 15: Land to the south of Harts Farm Way Grid Ref: SU 70300 05499		The site is large enough for the development measuring 3.65 hectares. The site is located to the immediate north of the Chichester and Langstone Harbour Special Protection Area (SPA), Langstone Harbour Site of Special Scientific Interest (SSSI) and Solent Maritime (SAC), and is therefore not suitable for development.	Not suitable
Site 16: Land to the north of A27 (Havant Bypass) Grid Ref: SU 68270 04975		The site is large enough for the development measuring 38.38 hectares. The site falls within several land titles, under multiple ownerships and features recreational land including football pitches and building associated with City Ladies Football Club. In northeast of the site lies East lodge Recreation Ground and East	Not suitable

		Lodge Recreation Ground Playground. The site is therefore not suitable or available for development.	
Site 17: Land to the east of Crookhorn Lane Grid Ref: SU 68034 06663		The site is large enough for the development measuring 97.0 hectares. The site constitutes existing land-uses including the Fort Purbrook Activity Centre, Portsmouth Golf Course and L&S Waste Management Ltd as is therefore not suitable or available for the development.	Not Suitable

- 5.2.4 It is considered that a robust approach using the agreed methodology has been completed to identify potential sites within the search area, which following a thorough assessment, it is concluded that none of the 17 potential alternative sites identified would represent available, suitable or viable alternatives within the 2.5km search area that would be both sequentially preferable from a flood risk perspective, and would meet the needs of the developer in terms of being a feasible BESS site.
- 5.2.5 It is therefore concluded that the application site is the most sequentially preferable site within the 2.5km search area to the POC. On balance, the Site is considered to meet the requirements of the ST, and given that no reasonably available sites are appropriate for the proposed development in an area at lower risk of flooding have been identified, the Site is also considered to have passed the ST.
- 5.2.6 Overall, it is considered that the Sequential Test is **passed**.

6.0 CONCLUSION

- 6.1.1 Enzygo Ltd have undertaken a Flood Risk Sequential and Exception Test in accordance with the National Planning Policy Framework, the Local Development Plan, and Planning Practice Guidance, to support a planning application submitted to Havant Borough Council for the construction of a 150Mwh battery energy storage facility at Land at Portsmouth Water, Bedhampton Water Treatment Works (WTW), Meyrick Road, Havant PO9 3HB.
- 6.1.2 A Flood Risk Assessment and Surface Water Drainage Strategy in accordance with the NPPF has been undertaken to inform the preparation of the site layout, which has shown that the site can be developed safely with regards to flood risk without increasing flood risk elsewhere.
- 6.1.3 The FRA identifies the site is almost entirely within FZ1, which is land outside the 1 in 1000- year (0.1% AEP) extent of tidal flooding at 'low' risk. The Site entrance is located within Flood Zones 2 and 3. Flood Zone 2 is land between the 1 in 100-year (1% AEP) and 1 in 1000-year (0.1% AEP) probability of fluvial flooding, at 'medium' risk. Flood Zone 3 is land within the 1 in 100-year (>1% AEP) risk of fluvial flooding, at 'high' risk.
- 6.1.4 The NPPF is clear that plans should apply a sequential, risk-based approach to the location of development, which should be done through the application of the Sequential Test ("ST"). The aim of which is to direct new development towards areas of lowest flood risk. It confirms that development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.
- 6.1.5 Furthermore, the NPPF clearly stipulates that if it is not possible for development to be located in areas with a lower risk of flooding (considering wider sustainable development objectives), the Exception Test ("ET") may have to be applied, depending on the potential vulnerability of the site and of the development proposed.
- 6.1.6 Accordingly, because the development is located mostly within FZ1 and would constitute 'essential infrastructure', the application of both the ST and ET has been applied.
- 6.1.7 Regarding the application of the ST, this Report confirms that there are no sites available on the open market for rent or sale that would be capable of accommodating the proposed development within 2.5km of the point of connection ("POC").
- 6.1.8 Whilst 17 potential alternative sites have been identified using the agreed methodology, it is considered that none of the 17 would be appropriate for the proposed development due to varying constraints.
- 6.1.9 It is therefore considered that the chosen development site is the most sequentially preferable site within the 2.5km search area around the POC and that there are no reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.
- 6.1.10 The Sequential Test is therefore **passed**.
- 6.1.11 Furthermore, following the application of the ST, this Report has demonstrated accordance with the provisions of the ET, the ET of which has been informed by a Site-Specific Flood Risk Assessment.

- 6.1.12 The ET has demonstrated that the proposed development would provide significant social, economic and environmental benefits, particularly associated with the reduction of greenhouse gas emissions, the promotion and support of clean, renewable energy, and a decrease in reliance on fossil fuels, contributing significantly towards Havant Borough's and the UK's decarbonisation and net zero objectives.
- 6.1.13 Furthermore, the ET has confirmed that the flood risk mitigation measures and drainage proposals, will ensure that the BESS will be operated with minimal risk from flooding.
- 6.1.14 Accordingly, the application of the ET in this Report has confirmed that the development would provide wider sustainability benefits to the community that outweigh the very limited flood risk and shall be safe for its lifetime, taking account of the vulnerability of its users, without increasing flood risk elsewhere.
- 6.1.15 Both elements of the Exception Test are satisfied, and the **Exception Test is therefore passed.**
- 6.1.16 To conclude, this Report confirms that the development would pass both the Sequential Test and the Exception Test, and the application should not be precluded on flood risk grounds.

Appendix A – Figures

Figure 1 – Site and search area (2.5km)

Figure 2 – Site and search area including discounted land

Figure 3 – Potential alternative development sites

Figure 4 – Planning Policy Mapping

Figure 5 – Flood Risk Mapping

Figure 1: Site and Search Area (2.5km)



Figure 2: Site search area including discounted land

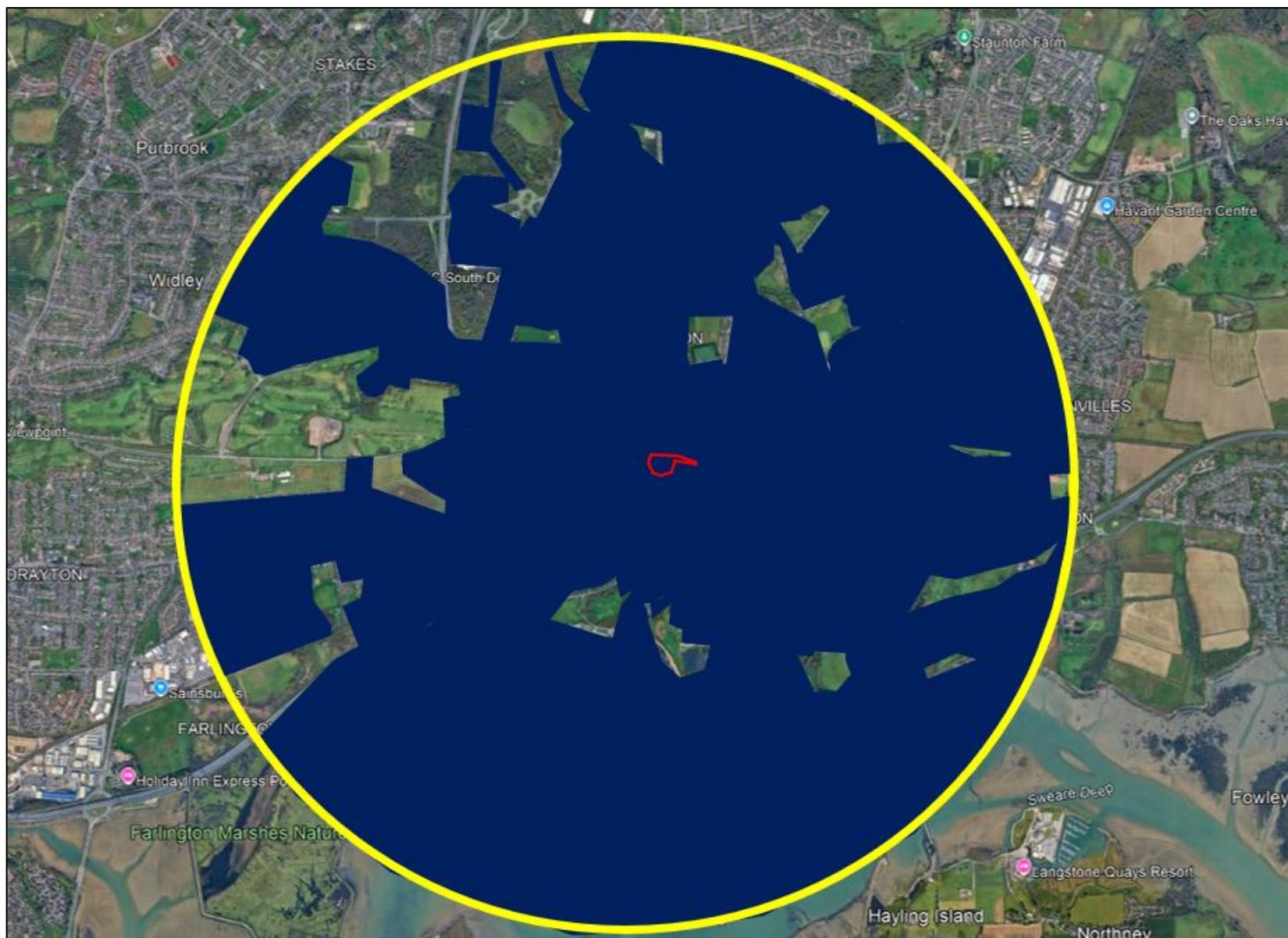


Figure 3: Potential alternative development sites

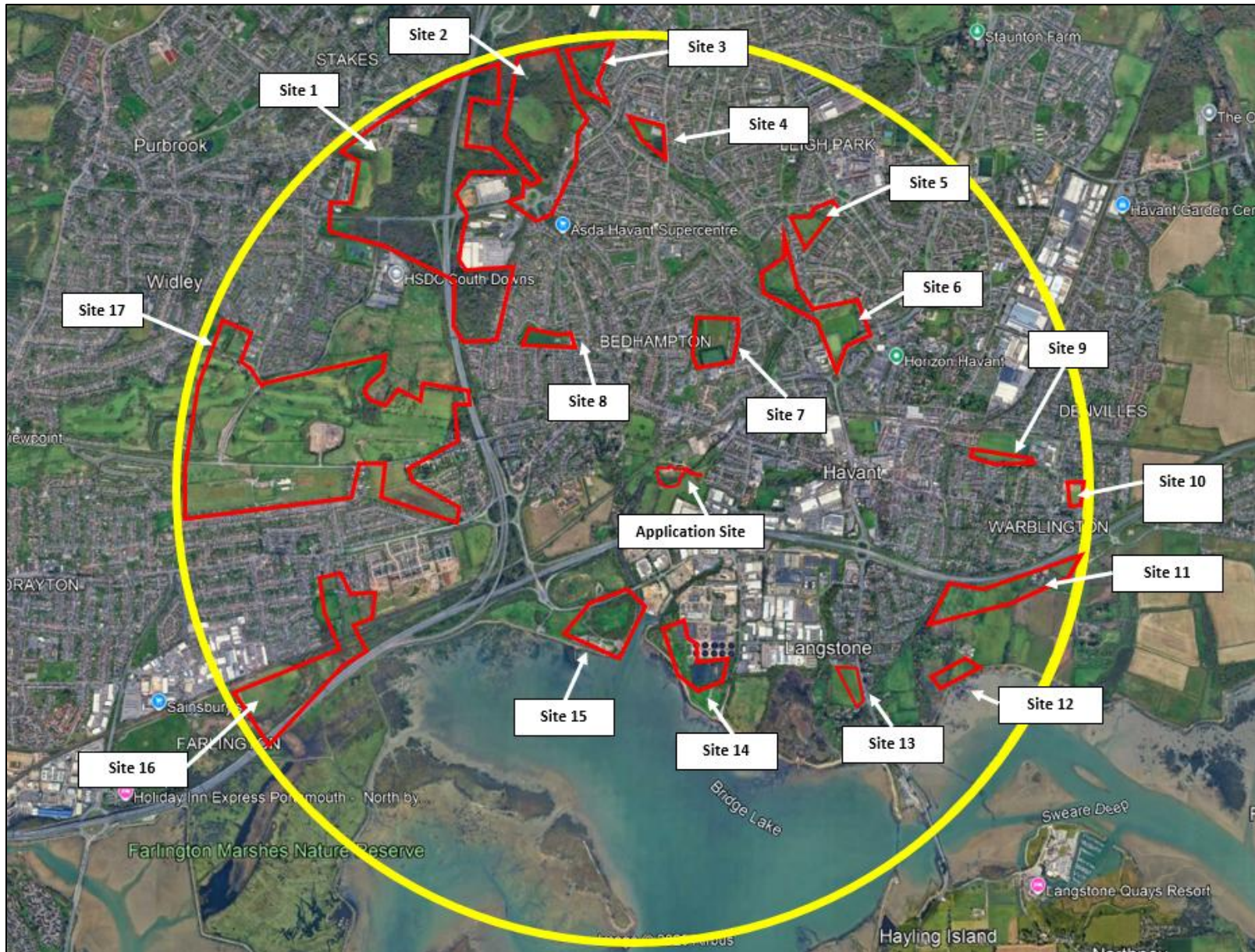


Figure 4: Planning Policy Mapping

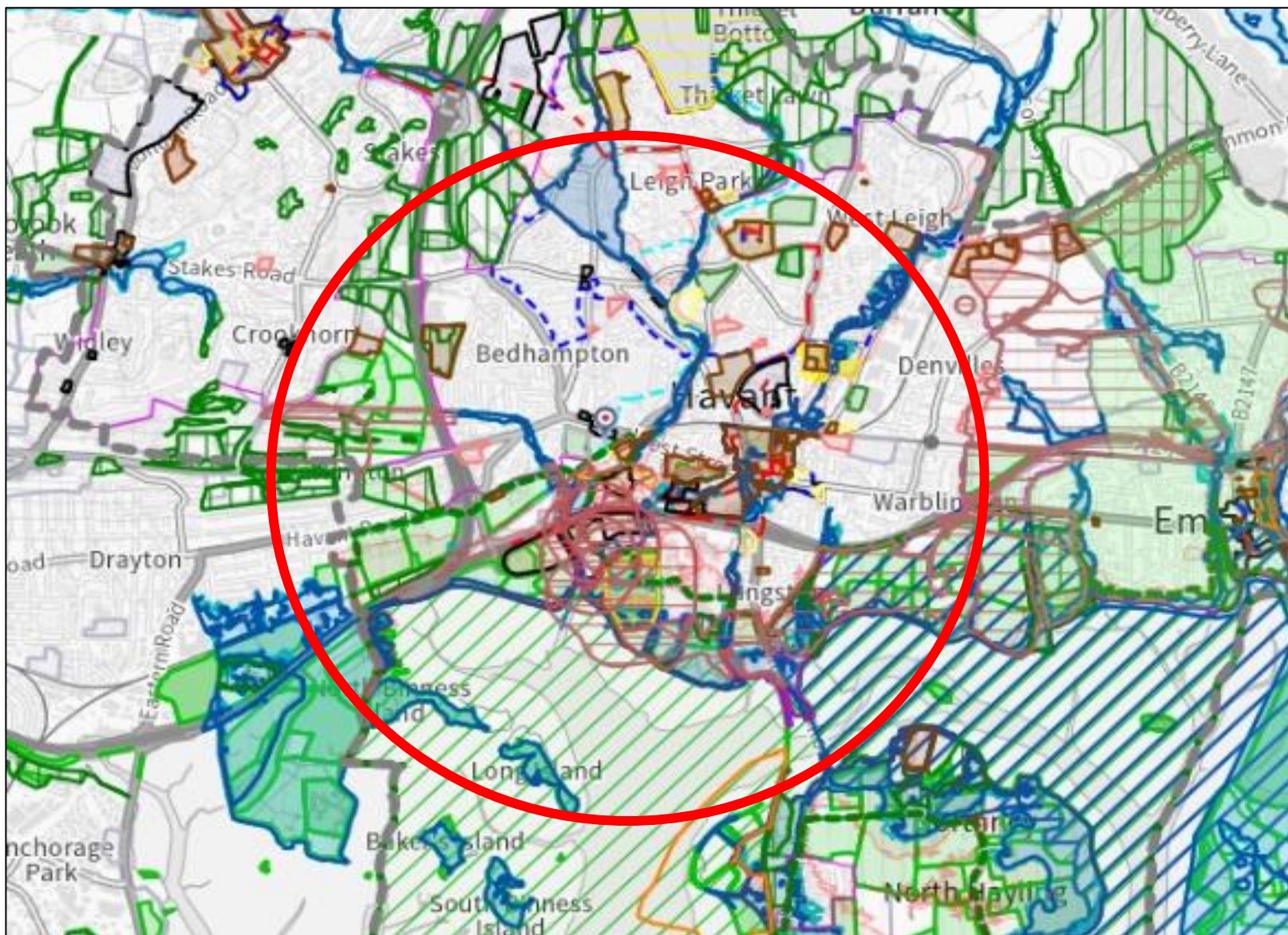
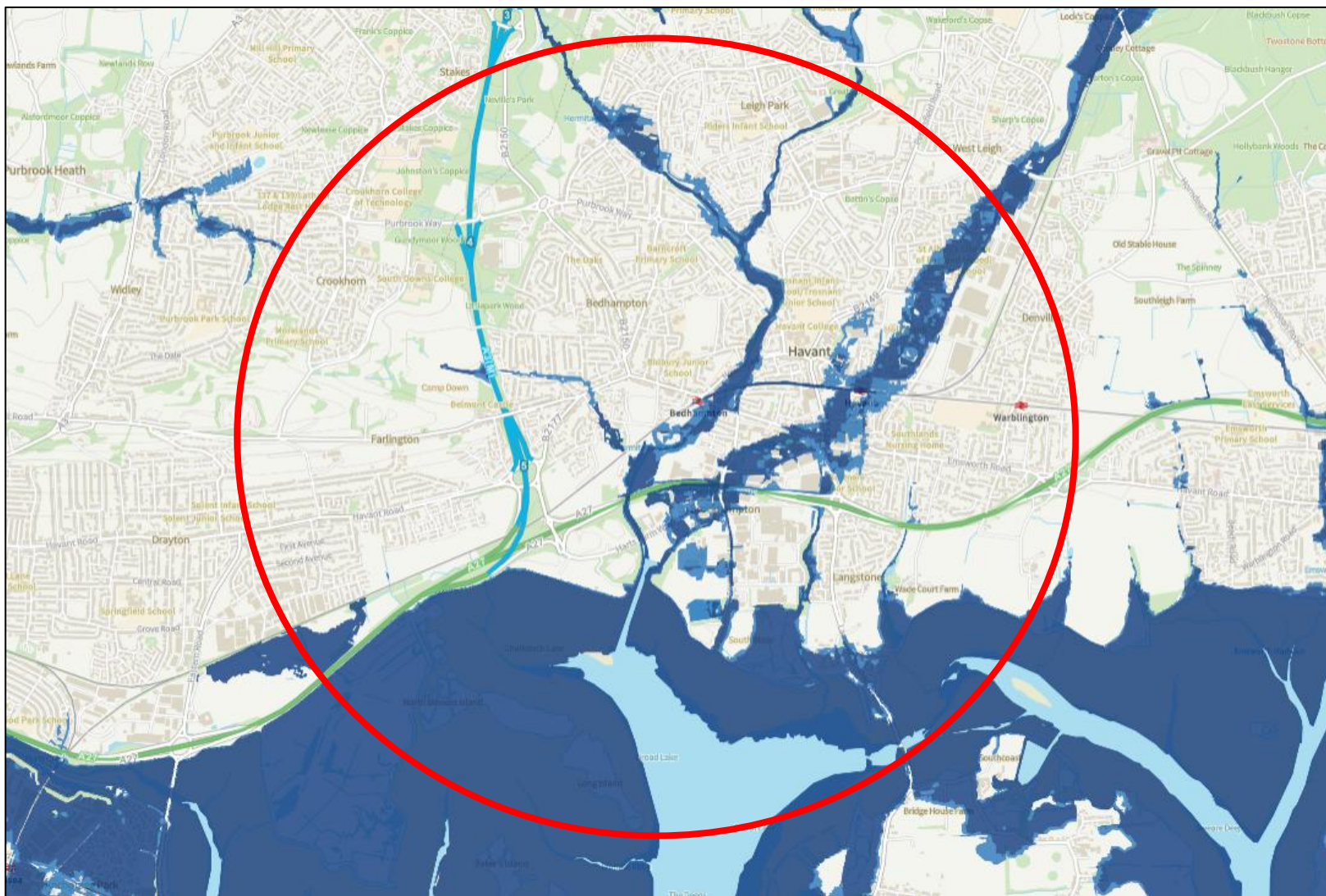
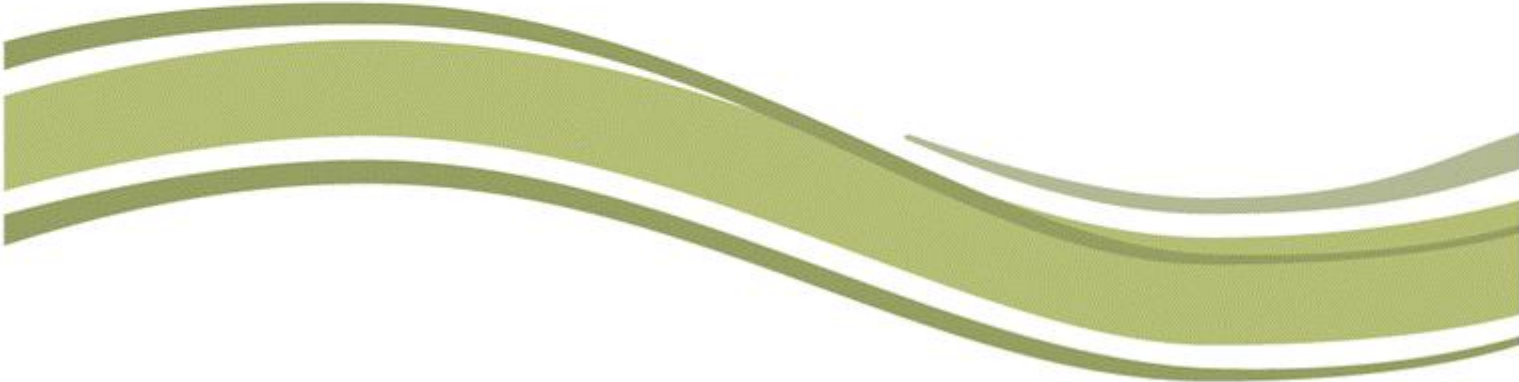


Figure 5: Environment Agency Flood Risk Map





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