

2.0 ENVIRONMENTAL IMPACT ASSESSMENT APPROACH

2.1 EIA PROCESS AND OBJECTIVES

- 2.1.1 This chapter of the Environmental Statement (ES) sets out the overall approach and methodology for assessing the environmental effects of the Proposed Development. In particular, it describes the process of identifying the environmental topics to be included in the ES and the method of assessing the effects that are likely to arise from the Proposed Development and the significance of these effects.
- 2.1.2 Details of the Proposed Development are presented in Chapter 3: The Proposed Development. Further details on how the assessment methodology has been applied to individual technical chapters is presented within the technical assessments supporting this EIA, specifically, Chapters 5 to 12. The Environmental Impact Assessment (EIA) methodology is in accordance with applicable legislation and best practice guidance and has been tailored to each technical aspect scoped into the EIA using industry standard methods and assessment criteria, as detailed in the respective technical chapters.

2.2 SCOPE OF THE WORK

Geographic Scope

- 2.2.1 The EIA directly covers the physical extent of the Site as shown in the red line boundary plan Figure 1.1. It is defined by the area of land to be used, the nature of the current environmental conditions and the manner in which impacts are likely to be generated. It is important to note however that the influence of many predicted impacts can extend beyond the immediate site boundary, for example, the effects on some designated sites located outside of the site redline boundary. Where identified and relevant, these impacts have also been assessed as part of the EIA.
- 2.2.2 The geographical extent of the EIA also considers the potential implications of related and un-related development activities. The potential cumulative effects of the Proposed Development in association with other developments both during construction and on completion are included where relevant as required by Schedule 4, Part 1 Paragraph 5e) of the EIA Regulations (HMSO, 2017). Chapter 13: Cumulative and In-combination Effects identifies the cumulative developments to be considered within the cumulative assessment.
- 2.2.3 Any existing developments have been considered within the baseline conditions described within each technical chapter. To identify approved developments within the vicinity of the Proposed Development an initial search was carried out by the Tetra Tech EIA team which involved a consideration of relevant planning policy and an online search of the Council’s planning application database. An appropriate list of cumulative sites to be considered were agreed with HBC during the original EIA scoping exercise undertaken in 2018. However, given the time which had elapsed since the previous planning application an updated list of potential cumulative developments for consideration was set out within the EIA scoping note which was submitted to HBC in December 2022. However, at the time of writing this ES, no response has been received.

Temporal Scope

- 2.2.4 Under the current programme, it is expected that construction will take place between 2024/2025 to 2030.
- 2.2.5 The assessments presented herein are largely based on the comparison of expected impacts compared with current or recent baseline environmental conditions. The approach taken in identifying the baseline scenarios is presented below.

Baseline scenario

- 2.2.6 The identify the existing baseline environment and associated characteristics, baseline information (environmental characteristics and conditions) has been collated, based upon surveys undertaken and desk-based information available at the time of the assessment.
- 2.2.7 Technical baseline summaries are provided in individual technical chapters and where necessary associated appendices. A summary of the site context and description is provided in Chapters 1 and 3.
- 2.2.8 The baseline conditions have largely remained constant during the collation of the desk-based data and surveys that informed the ES assessment submitted in 2019. However, where required additional surveys and desk top studies have been undertaken the supplement and update the relevant information to identify appropriate site conditions within the full extent of the site boundary. Any limitations identified in collating the baseline information have been identified within the technical chapters 5 to 12 where relevant.

Future Baseline

- 2.2.9 Schedule 4(3) of the EIA Regulations 2017 requires an outline of the likely evolution of the current state of the environment (baseline scenario) without implementation of the Proposed Development, as far as natural changes from the baseline scenario can be assessed. Whilst there are considerable limitations to the predictions that can be made about baseline conditions at a future point in time, some assessments require projections to account for future change, such as traffic growth. For some assessment, such as air quality, noise and vibration, landscape and visual, projections are a required part of the proposed development methodology. These approaches are explained in further detail in the relevant chapters concerned.
- 2.2.10 Under the current program, it is expected that construction works will commence around 2025, and completion of construction works in 2030. The total construction period used in the ES is therefore assumed to be 5 years.
- 2.2.11 The assessments presented herein are largely based on the comparison of expected impacts compared with current or recent baseline environmental conditions. This is with the exception of topics such as air quality and landscape and visual assessments which factor in future baseline changes into the assessments in future year impact scenarios. These approaches are explained in further detail in the relevant chapters concerned.

Technical Scope

- 2.2.12 In order to ascertain the likely scope of the EIA, the scoping process involved the following steps:

	• Identification of the planning application boundary; • Identification of the key characteristics of the Site and the establishment of the environmental baseline through a series of desk and field studies; • Identification of gaps in the baseline and the further survey work required to address these shortfalls; • Initial consideration of the potential sources and nature of environmental impacts through assessment against the environmental baseline; and • Definition of impact assessment methodologies to be utilised.	(ii) the development includes more than 150 dwellings; or iii) the overall area of the development exceeds 5 hectares.”
2.2.13	In addition, the following key documents are available as separate reports prepared as part of the wider planning application documentation: • Planning Statement; • Design and Access Statement; • Plans and Drawings; • Statement of Community Involvement; • Transport Assessment; • Nutrient Neutrality and Recreational Disturbance Mitigation; • Minerals Safeguarding Assessment; • Arboricultural Assessment and Tree Survey; • Lighting Strategy; • Contamination Land Investigation Report; • Ball Strike Assessment; • Utilities Assessment; • Flood Risk Assessment and Drainage Strategy; and, • Sustainability/Energy Statement.	2.2.16 No screening opinion for the Proposed Development was sought as it was considered that due to the scale and location of the Proposed Development, this Schedule 2 development that would require an EIA. 2.2.17 An EIA scoping opinion for the proposed development was requested under the EIA Regulations by Tetra Tech from HBC in February 2018. As part of this formal scoping process HBC consulted with the relevant internal departments in the council and externally with statutory consultees, including Natural England, Historic England, the Environment Agency and with other non-statutory consultees as the Council deemed relevant. HBC issued their scoping opinion in April 2018, which summarised the comments received from consulted stakeholders, and outlined the Council’s opinion on the proposed content of any subsequent ES. A subsequent EIA scoping note was submitted to HBC in December 2022 to confirm the minor scheme changes and the applicant’s intention to submit a new application supported by an ES using the technical scope as previously agreed. At the time of writing this environmental statement, no reply has been received. 2.2.18 Table 2.1 provides a list of the consultee responses as part of this Scoping consultation. These responses have been taken into consideration in determining the scope of the EIA and the table also provides a summary of the comments received and signposts to where these have been addressed in the ES. 2.2.19 Other topic specific consultations that have been undertaken as part of the process are discussed within the relevant topic chapters.
		Topics scoped into the ES 2.2.20 The topics that were formally agreed through the scoping process, i.e. those which have the potential to give rise to significant environmental effects and are therefore addressed as part of this ES are listed below: Chapter 5: Traffic and Transport; Chapter 6: Air Quality; Chapter 7: Archaeology and Cultural Heritage; Chapter 8: Landscape and Visual Impact; Chapter 9: Ecology; Chapter 10: Noise; Chapter 11: Water Environment; and, Chapter 12: Socio-Economic. Topics not considered further in the ES
2.2.14	The requirement for an EIA is based on the likelihood of significant environmental effects arising from a proposed development; and is either mandatory or conditional depending on the classification of the development project. EIA Developments are divided into Schedule 1 and Schedule 2 developments under the EIA Regulations. As outlined in Chapter 1, it was determined by applicant and Tetra Tech that the characteristics of the development fall under the following development types within the EIA Regulations: <i>Section 10 (b) of Schedule 2 of the EIA Regulations; ‘Urban Development Projects’</i>	
2.2.15	Schedule 2 category 10(b) sets out the following thresholds for urban development projects: “(i) The development includes more than 1 hectare of urban development which is not dwellinghouse development; or	2.2.21 Issues and topics which have been assessed as unlikely to give rise to significant environmental effects have been omitted (also termed ‘scoped out’) from the EIA and are detailed below with

reasons provided as to why they are not considered to give rise to significant environmental effects. Topics not considered further in the ES include:

Ground Conditions and Minerals

- 2.2.22 A geo-environmental Site assessment was undertaken in 2016 by RSK Environment Limited as part of the baseline work for the Site. This identified that the Site comprises large semi-improved grassland fields currently in agricultural use. The assessment indicated that pollutant linkages were absent, and the Site was suitable for its proposed uses. Additionally, measured concentrations of potential contaminants of concern were found to be below levels of detection or typical background concentrations. Visual inspection at the laboratory did not detect any asbestos within samples of topsoil and made ground.
- 2.2.23 The Site is not considered to be associated with any geological SSSI (Site of Special Scientific Interest), RIGS (Regionally Important Geological Site) or site of geo-morphological significance.
- 2.2.24 The Agricultural Land Classification maps¹ indicate that the site is of Grade 4 (poor quality) agricultural land.
- 2.2.25 The Site is not located in an area likely to be affected by mining issues and has not been identified as being located within any mineral safeguarding areas. Desktop research shows that the site is predominantly underlain by London Clay Formation, which comprises clay, silt, and sand. In addition, part of the southern area of the site is underlain by the Lambeth Group, which comprises clay, silt, and sand. The very southern tip of the site has been found to be underlain by the Portsdown Chalk Formation. Recent geological assessment indicates that the Lambeth Group, which coincides with HCC's Brick Clay MWCA, was encountered in two boreholes (BH13 and BH14) around 1m below ground level.

Construction

- 2.2.26 It has been determined that a deep level mineral extraction is not viable at the site. Mainly due to the limited extent of safeguarded clay present within the site. In order to determine the amount of material that requires to be exported offsite, a cut and fill exercise will have to be carried out. Materials and soils will also be encountered during the preparatory earthworks after levelling works are complete. In terms of any soils or materials (including safeguarded clays) that are encountered it is considered that the most suitable use would likely be as backfill material. Only very small quantities of clay would be encountered due to the extent of superficial deposits at the site. To reduce the potential requirement for off-site transportation, measures to re-use the existing resources on site would be implemented via a Construction Environmental Management Plan (CEMP).
- 2.2.27 During the construction works measures within the CEMP will be implemented to control pollution related risks during construction. This document will also set out measures for the storage and handling of potentially contaminating materials and also emergency procedures which should be adopted in the event that unidentified contamination is found during groundworks.

- 2.2.28 Following standard best practice measures such as the storage and re-use of materials. In order to help preserve the integrity of the existing topsoils, removal of vegetation and topsoil stockpiling with be done in accordance with The Construction of Practice for the Sustainable use of Soils on Construction Sites.

- 2.2.29 Therefore, it is not anticipated that there would be any residual significant effects based upon this scoping assessment and it is considered that a separate chapter assessing Ground Conditions is not required within the ES and this approach was agreed with HBC via their scoping opinion.

Waste

- 2.2.30 The Proposed Development site is currently predominantly a greenfield site and therefore does not generate significant levels of waste.

Construction

- 2.2.31 The site preparation and construction activities on Site will generate a variety of waste material which will be controlled through an appropriate Site Waste Management Plan. As well as this, a number of measures will be implemented as part of a CEMP which will be prepared and agreed with HBC prior to the start of the construction works. Some of the potential measures which could be implemented during the construction phase are summarised in Chapter 3.

Operation

- 2.2.32 Waste produced during the day to day occupation of the Proposed Development will comprise municipal waste mainly from the residents. It is proposed that HBC, as the Waste Collection Authority, will collect the household waste from the Proposed Development with any commercial waste being collected by private waste management companies. The Proposed Development will be designed to provide suitable access for Refuse Collection Vehicles and ensure that waste can be safely collected from the kerbside collection points for the residential elements or appropriate yards or carparks for the commercial elements.
- 2.2.33 It will be necessary for residents to segregate their waste according to the Council's requirements. Sufficient internal and external space will be provided in order to ensure that the household waste produced from the Proposed Development can be segregated in accordance with the Council's requirements as well as legal requirements. The arrangements for the storage and segregation of household waste within the Proposed Development will accord with the current waste collection arrangements within HBC and the detailed design will be designed to accommodate this. A number of measures in the layout and design of the scheme and the properties will therefore be proposed to reduce waste generation and encourage recycling and re-use.
- 2.2.34 The occupiers of the commercial premises will need to make waste collection arrangements with a private commercial waste management company or with HBC's chargeable trade waste service.
- 2.2.35 Therefore no significant effects on waste are considered likely during construction and operation of the Proposed Development and consequently consideration of effects associated with waste have been scoped out of the EIA.

¹ Natural England (2016) Regional Agricultural Land Classification Maps

Lighting

- 2.2.36 A Lighting Strategy was prepared in support of the scheme design and planning application in June 2023. This identifies that the lighting sources surrounding the Proposed Development, include the HSDC South Downs education college to the northwest corner of the site, street lighting along college road parallel to the western site boundary and light spillage from the residential development beyond and the B2177/Portsdown Hill Road beyond the Golf Course to the south. The environment surrounding the application site has been categorised as ‘Medium District Brightness’, as an E3 Environmental Zone in accordance with the ILP Guidance Notes, already producing a certain level of Sky Glow.

Construction

- 2.2.37 The on-site temporary light fittings, construction compounds and on-Site security lighting associated with preparation and construction have the potential to result in sky glow and light trespass or ‘spill’ impacting sensitive local and ecological receptors. The level of light will be dependent on the location of the construction activities on a daily basis and the equipment being used, with light levels being attenuated as the distance between the source and receptor increases. Overall, where an effect arises the effect on sensitive receptors during the construction phase will be short term and temporary in nature and considered to be of minor negative significance. However, as lighting would be temporary and mobile, units can and should be relocated if recognised as having a negative impact on sensitive receptors. Through the implementation of a CEMP, the potential impact of construction lighting is deemed to be negligible.

Operation

- 2.2.38 During the operational phase, the likely impacts include the introduction of artificial light sources as part of the proposed development, which will result in changes to the current baseline conditions. The proposed lighting scheme will comply with all relevant British Standards and the Institution of Lighting Professionals lighting guidelines and will serve to ensure that the safety and security of all areas of the development can be effectively maintained. The effects on sensitive receptors will be mitigated through following all the principles set out in this document and by the implementation of a stringent final detail lighting design.
- 2.2.39 Therefore, no significant effects on lighting are considered likely during construction and operation of the Proposed Development and consequently consideration of effects associated with lighting have been scoped out of the EIA.

Human Health

- 2.2.40 Human health assessment has been considered, where appropriate, within specific topic chapters; namely air quality, noise and socio-economics. It is not considered necessary for this development to undertake a specific Health Impact Assessment, as there are no specific features of the development that present particular health issues or concerns.

Construction

- 2.2.41 The proposed development will abide by current housing safety regulations and construction activities will be controlled through a CEMP, ensuring compliance with the Health and Safety

Construction (Design and Management) Regulations (2015). These would reduce any potential effects associated with the construction works on site.

Operation

- 2.2.42 For the operational phase, the Proposed Development’s design offers green infrastructure that would provide benefits towards human health. No other effects, beyond those considered within the chapters mentioned above are envisaged.
- 2.2.43 Therefore no significant effects on human health are considered likely during construction of the Proposed Development and consequently consideration of effects associated with human health have been scoped out of the EIA.

Climate Change

- 2.2.44 The requirement to address climate change has been introduced by the EIA Regulations 2017 with a specific requirement for the following:
- The impact of the Proposed Development on climate through for example the nature and magnitude of greenhouse gases (GHG) emissions, defined as climate change mitigation; and,
 - The vulnerability of the Proposed Development to climate change, defined as climate change adaptation.

Climate change mitigation

- 2.2.45 Increases to greenhouse emissions are a potential impact for both the construction and operational phases. This is due to emissions from construction plant on site, and construction phase road traffic, as well as emissions from operational users and road vehicle exhaust emissions associated with travel to and from the site.
- 2.2.46 To reduce construction emissions including embodied carbon, where possible, the detailed design of the Scheme would incorporate environmentally sustainable techniques and materials (e.g. low carbon concrete), to reduce the carbon footprint. Further measures which would be implemented by the construction contractor at the stages at which the materials are being procured would include monitoring developments in construction materials and adopting new technologies where practical to further reduce carbon emissions associated with the raised structures. The construction contractor should also procure steel from suppliers using green energy for manufacturing.
- 2.2.47 In addition, the Contractor will use well-maintained equipment, new technology low emission vehicles where feasible, and implement construction procedures (e.g. regular fleet maintenance) to minimise emissions, as will be detailed in the CEMP.
- 2.2.48 The proposed development shall be designed and constructed to be a highly sustainable, low energy and carbon generating development in line with both national regulations and local planning policies and the clients’ aspirations to reduce energy use and carbon emissions. The building envelope for the proposed development has been designed to meet the standards of the most up to date Building Regulation Part L 2022 delivering a 31% carbon reduction across the scheme. This will be achieved through the implementation of the ‘energy hierarchy’ and seeking to apply a ‘fabric first’ approach. These measures will encourage consideration of more renewable energy sources and

inclusion of features such as insulation, gas boilers with flue gas heat recovery and energy-efficient white goods within individual homes.

- 2.2.49 These measures will result in the development being able to reduce both its ongoing energy demands and its resulting carbon emissions in accordance with the national carbon reduction requirements and therefore no further assessment of GHG emissions is considered necessary as part of the ES.

Climate change adaptation

- 2.2.50 Climate change adaptation refers to the resilience of the Proposed Development to climatic changes, which include but are not limited to increases in temperatures and flood events.

- 2.2.51 The UKCP18 Projections at 2°C global mean warming show a general trend of:

- Increased summer temperatures – the UK’s summers will also be drier with average temperatures anomalies ranging from 0.7° to 4.2°;
- Increased winter temperatures – the UK’s winters will also be milder with higher rates of rainfall; and,
- Precipitation – slightly wetter winters and drier summers.

- 2.2.52 The Flood Map for Planning published by the Environment Agency and available online confirms the site is in Flood Zone 1 (Low Probability) and is at low risk of flooding from rivers and the sea. A Flood Risk Assessment has been prepared to support the application that has appraised the potential risk through a review of the anticipated depth and frequency of the flooding the mapping suggests. A suitable discharge rate has also been included within the supporting drainage strategy which allows for the impacts of climate change.

- 2.2.53 Limited risk on the development associated with other climatic changes are anticipated.

- 2.2.54 The above review demonstrates that suitable mitigation measures can be provided on site to reduce any potential effects associated with climate change to a level which is not significant in EIA terms therefore this topic does not need to be assessed further within the ES.

Major Accidents, Fire and Natural Disasters

- 2.2.55 The Site is not located within an area which is at any higher risk of major accidents, in addition, the Proposed Development is not likely to generate new sources of major accidents, hazards or threats. Furthermore, as set out in the Flood Risk Assessment and Drainage Strategy the Site is located in Flood Zone 1.

- 2.2.56 The Proposed Development will be designed to current best practice, in respect road safety, drainage design and building regulations. Site-specific considerations in relation to safety and security and crime prevention are set out within the Design and Access Statement.

- 2.2.57 During construction, activities will be controlled through the CEMP which will ensure compliance with the health and safety Construction (Design and Management) Regulations (2015).

- 2.2.58 Given the housing led nature of this development, the potential for either large volume storage or frequent passage / delivery of fuels and chemicals during both construction and operation is

considered to be low. This is in comparison to more industrial sites such as chemical works, storage depots, docks, major highways etc.

- 2.2.59 It is considered that, while there is always a potential risk of an accident, fire or natural disaster that could result in a significant environmental effect; this risk, can be appropriately mitigated through embedded design measures and through compliance with statutory design guidelines. It is subsequently proposed that these potential risks are scoped out of future assessments for this development.

- 2.2.60 Therefore, no significant effects associated with major accidents and disasters are considered likely during construction and operation of the Proposed Development and consequently consideration of effects associated with these have been scoped out of the EIA.

Table 2.1 2018 Scoping Comments and Response Table

EIA Scoping Comments and Responses		
Consultee	Comment	Response / Where this is addressed
General		
Havant Borough Council 18th April 2018	In terms of the Status of the site it is relevant to note that whilst Section 2.5.3 of the scoping report highlights that the site is allocated in the Draft Havant Borough Local Plan 2036. It is important to note that it is not. It is proposed as an allocation and was subject to Regulation 18 consultation on that basis.	The Council submitted their new Local Plan for Examination in February 2021, however at a Full Council meeting on the 22nd March 2022, the Local Plan was formally withdrawn under Section 22 of the Planning and Compulsory Purchase Act 2004. The withdrawn Local Plan allocated the application site (Policy H40) for “ <i>mixed-use development of about 650 dwellings, open space and community centre with sporting facilities</i> ”. The policy allocation included a number of criteria that any subsequent application had to take into account.
Natural England	<u>Green infrastructure, access and recreation</u> Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. The EIA should consider potential impacts on access land, public open land, rights of way in the vicinity of the development. Appropriate mitigation measures should be incorporated for any adverse impacts. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced. Natural England recommends that the role of GI to maintain and enhance the biodiversity is fully explored and opportunities identified to maximise the benefits of the GI for both people and wildlife, thereby securing biodiversity enhancement. GI will also play a significant role in preventing the coalescence of settlements, retaining local landscape character. <u>Cumulative and in-combination effects</u> Natural England advise that a full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment. The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information): - existing completed projects; - approved but uncompleted projects; - ongoing activities; - plans or projects for which an application has been made and which are under consideration by the consenting authorities; and - plans and projects which are reasonably foreseeable, ie projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects. Natural England would advise that the Environmental Statement should also consider known forthcoming planning applications such as allocation sites, where there are potential impacts on key ecological interests. For example, there are other sites included as allocations in the Draft Havant Borough Council Local Plan that are also listed in the SWBGS. Consideration should be given to the cumulative impact arising from the loss of these sites on the continued ecological function of the network. Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.	Details on the provision of green infrastructure and open space are included in Chapter 3, the DAS and the Planning Statement Addressed within Chapter 13: Cumulative and Interactive Effects Addressed within Chapter 13.

EIA Scoping Comments and Responses		
Consultee	Comment	Response / Where this is addressed
Planning Policy (HBC)	<u>Infrastructure planning</u> The site is located close to a number of other sites (see section below) in the Purbrook area that are proposed for allocation in the Draft Local Plan. This creates a cluster of approximately 1000 new homes in this part of the Borough. It is essential that new infrastructure provision is planned in a coordinated way that takes account of the cumulative effect of this level of development on the Borough's infrastructure networks. It is highlighted in the Draft Local Plan that infrastructure provision in this part of the Borough should be planned in a coordinated way. Given the cluster of development in this part of the Borough, this is key. However, it should be stressed that such infrastructure does not necessarily need to be delivered in a coordinated way, bearing in mind the different development timescales. However, coordination of infrastructure provision is necessary in order to achieve sustainable development and not overburden the Borough's infrastructure network. <u>Cumulative Schemes</u> The applicant has requested that HBC confirm the sites that should be considered in a cumulative assessment. These are considered to be: Berewood and Wellington Park (KS9 in the Draft Local Plan) Forty Acres (H15 in the Draft Local Plan) Littlepark House (H23 in the Draft Local Plan) Land North of Fort Purbrook (H44 in the Draft Local Plan) Former South Downs College Car Park (H45 in the Draft Local Plan) Given the strategic infrastructure constraints facing this part of the Borough, it is considered appropriate that these are fully considered and that this is done in combination with the impact from other nearby schemes. It is also considered that social infrastructure be extended in scope to include public health impacts and how the development will affect public health.	Assessed within Chapter 13: Cumulative and Interactive Effects
Ecology		
County Ecologist	Is content with the scope of works as set out in the submitted Environmental Impact Assessment, Scoping Report (WYG, February 2018). Ecological issues will undoubtedly be a significant material consideration at this site and a thorough approach to understanding the constraints and the options for mitigation, compensation and enhancement will be necessary.	Ecology matters are addressed within Chapter 9
Planning Policy (HBC)	Advise that whilst the applicant has identified that Ecology and Wildlife should be scoped in, you are strongly encouraged to engage with the Council's Ecologist and Natural England in the preparation of the Wildlife and Ecology Chapter, the scope of any Wintering Bird Surveys and the information to support the HRA.	Ecology matters are scoped in and are addressed within Chapter 9
Natural England	Note the scope of the ecological assessment in relation to designated sites, non-designated sites, protected species, priority habitat and species and wider biodiversity. Natural England does not hold locally specific information relating to protected species, local or national biodiversity priority habitats and species, local sites (biodiversity and geodiversity) and local landscape character. These remain material considerations in the determination of this forthcoming planning application and we recommend that Hampshire Biodiversity Information Centre and other appropriate bodies are contacted for further information. In some instances, further surveys may be necessary through an ecological appraisal to be agreed by a Hampshire County Council (HCC) ecologist. The application site is within 5.6km of the Chichester and Langstone Harbours SPA and will lead to a net increase in residential accommodation and the associated recreational impacts on the Solent SPAs. This forthcoming application will need to comply with Local Plan Policy with regard to Solent Recreation Mitigation Partnership (SRMP) contribution. This applies to all new development of one or more dwellings. As noted in the scoping report, the site is used by brent geese and curlews. These are qualifying features of the Chichester and Langstone Harbours Special Protection Area (SPA) and the site is identified in the Solent Waders and Brent Goose Strategy (SWBGS). The forthcoming update of the SWBGS classifies part of the site as a Primary Support Area and part of the site as a Secondary Support Area. The strategy aims to protect the network of non-designated terrestrial wader and brent goose sites that support the Solent Special Protection Areas (SPA) from land take and indirect effects associated with new development. The forthcoming update of the SWBGS includes guidance on mitigation and offsetting requirements. Detailed consideration of this issue is required and we recommend that you seek further information from the Hampshire Biodiversity Information Centre and other appropriate bodies to ensure the assessment reviews all existing data available for the site. A comprehensive offsetting and mitigation strategy will be necessary.	Assessed within Chapter 9: Ecology

EIA Scoping Comments and Responses		
Consultee	Comment	Response / Where this is addressed
	Natural England would be happy to advise further, as part of our Discretionary Advice Service, on whether there is sufficient survey information for the site and with regard to the mitigation and offsetting requirements necessary for this development. The scoping report sets out the protected species ecological surveys being undertaken as part of the EIA. Detailed consideration of these issues within the EIA is required with mitigation strategies, as appropriate. It is noted that there will be no separate Lighting Chapter. However, the impact of a change in lighting from the development on sensitive species, such as bats, will be assessed in the ecology chapter. The site lies adjacent to an area of Ancient Woodland and consideration of any direct or indirect impacts on this habitat should be included in the EIA. Information about ancient woodland can be found in Natural England’s standing advice http://www.naturalengland.org.uk/Images/standingadvice-ancient-woodland_tcm6-32633.pdf In order to secure appropriate biodiversity mitigation and enhancements Natural England recommends that the Environmental Statement is supported by a Biodiversity Mitigation and Enhancement Plan (BMEP) that has been agreed with a Hampshire County Council Ecologist. The BMEP should include measures for mitigating impacts on protected species and habitats and include biodiversity compensation measures for any residual biodiversity losses that cannot be fully mitigated on site. This might include the provision of offsite replacement habitats, or an agreed financial contribution for biodiversity enhancements elsewhere calculated using a Biodiversity Compensation Framework, Environment Bank, or similar mechanism. In the recent 25 Year Environment Plan, the Government has committed to making sure the existing requirements for net gain for biodiversity in national planning policy are strengthened and the current trend of biodiversity loss is halted. Natural England strongly recommends that this proposal achieves a net gain for biodiversity and we advise that a biodiversity metric is used to help with this process. This approach would ensure that the local planning authority will have met its duties under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 which states that ‘Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity’. Where residual biodiversity losses are considered unavoidable, Natural England recommends that further advice on these aspects is sought through our Discretionary Advice Service (DAS). Further information on the DAS service and how to apply can be found here: https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals The site forms part of a wider ecological corridor that represents an important link between the wader and brent goose sites on the coast and the Bechstein’s bat habitat further inland as well as supporting existing sites of importance for nature conservation interest and wider biodiversity including habitat for hazel dormice, reptiles, bats and other protected species. The significant housing pressure within the Borough will result in the loss of many remaining green spaces. It is important that all development coming forward maintains and enhances these wildlife links and appropriate supporting habitat for protected species is retained, biodiversity enhanced and the fragmentation of habitats and species is prevented. The ecological assessment should consider the loss of this greenfield site within this network and how the remaining wildlife areas and green infrastructure can be significantly enhanced to support the wider ecological network in the Borough. The NPPF requires that the planning system should contribute to the enhancement of the natural environment ‘by establishing coherent ecological networks that are more resilient to current and future pressures’ (NPPF Para 109), which should be demonstrated through the ES. The measures to enhance wildlife areas and strengthen ecological corridors should therefore be incorporated into the BMEP and could be achieved by retaining wildlife areas, mature trees, hedgerows, planting native species, new woodland areas and new hedgerows. <u>Cumulative and in-combination assessment</u> Natural England would advise that the cumulative impacts section should also consider impacts on ecologically sensitive receptors such as designated sites, non-designated sites, priority habitats and species, protected species etc. Natural England would advise that the Environmental Statement should also consider known forthcoming planning applications such as allocation sites, where there is potential impacts on key ecological interests. For example, there are other sites included as allocations in the Draft Havant Borough Council Local Plan that are also listed in the SWBGS. Consideration should be given to the cumulative impact arising from the loss of these sites on the continued ecological function of the network. The in-combination impacts of a loss of the allocation sites on ecological corridors, wildlife links and wider biodiversity. It is recommended that the HCC ecologist is consulted to ensure sensitivities relevant to the forthcoming Havant Biodiversity Strategy are considered.	Addressed within Chapter 13: Cumulative and Interactive Effects
Transport		
Highways England	We are content that A3(M) has been identified as key potential receptors and will be fully considered in forthcoming Transport Assessment.	Considered within the supporting TA

EIA Scoping Comments and Responses		
Consultee	Comment	Response / Where this is addressed
Hampshire County Council	Advise a full Transport Assessment will be required, which should set out the baseline traffic and transport condition, provide trip generation and distribution information and assessment of local junctions. The assessment should also review the latest available personal injury accident information for a five-year period and set out suitable mitigation proposals. A Travel Plan, setting out aims and objectives with a costed action plan of measures to encourage sustainable transport choices to and from the site in accordance with the HCC Guidance Development -related Travel Plans (2009) is also required.	Assessed within the supporting Transport Assessment
Noise		
Environmental Health	Advise that this development will be right next to the A3M & as such traffic noise will be the predominant noise source for new residential receptors. We have yet to see how the developers plan to mitigate fully against this source; therefore, although noise assessments have been carried out there are questions which have not been answered as yet.	Assessed within Chapter 10: Noise
Air Quality		
Havant Borough Council 18 th April 2018	Given the proximity to the A3 (M) and concerns regarding air pollution, a chapter on air quality is required.	Addressed within Chapter 6: Air Quality
Natural England	Advise Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition (England Biodiversity Strategy, Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. For your information, the Partnership for Urban South Hampshire (PUSH) has commissioned a detailed study on the in-combination impacts of the new housing development on the air quality environment as part of the local plan process. This assessment work is currently on-going. The assessment should take account of the risks of air pollution and how these can be managed or reduced. We would advise that the air quality assessment fully considers the in-combination effects of the proposal in line with the Wealden Judgement 2017 (CO/3943/2016 Wealden District Council v Secretary of State for Communities and Local Government). Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk). Further information on air pollution modelling and assessment can be found on the Environment Agency website.	Addressed within the Air Quality, Ecology and Cumulative Effects Chapters
Archaeology and Cultural Heritage		
County Archaeologist	Advises that there is archaeological sensitivity to the site including a scheduled monument which will need to be protected along with its setting. Para 8.6.1 'An Archaeology and Cultural Heritage ES Chapter will be produced. This is welcomed. With the presence of the ancient monument indicating some overriding archaeological issues archaeology may well prove to be an important material consideration in the progress of any planning application and support of this discussion by a chapter in the Environmental Impact Statement will be vital.	Assessed within Chapter 7: Archaeology and Cultural Heritage
Principal Conservation Officer	Given archaeological sensitivity to the site including a scheduled monument which will need to be protected along with its setting and Fort Purbrook (scheduled ancient monument and listed Grade II*) archaeology and cultural heritage may prove to be an important material consideration. Therefore, a chapter reflecting the historic environment in the EIA will be essential, and is scoped in.	Assessed within Chapter 7: Archaeology and Cultural Heritage
Landscape and Visual Impact Assessment		
Havant Borough Council	The site occupies a prominent location and the EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography. The EIA should also identify if there will be any long-distance views from the Chichester Harbour Area of Outstanding Natural Beauty.	Assessed within the Chapter 8: LVIA

EIA Scoping Comments and Responses		
Consultee	Comment	Response / Where this is addressed
18 th April 2018	The European Landscape Convention places a duty on Local Planning Authorities to consider the impacts of landscape when exercising their functions.2776	The topography has informed the design layout and will not be changed fundamentally to accommodate the development. There will be no long-distance views from Chichester harbour as it is approximately 9km away from the site in a direct view line.
Natural England	Would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography. The EIA should also identify if there will be any long-distance views from the Chichester Harbour Area of Outstanding Natural Beauty. The European Landscape Convention places a duty on Local Planning Authorities to consider the impacts of landscape when exercising their functions. In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit. The landscape and visual assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area.	Assessed within the Chapter 8: LVIA which interprets national, regional and local landscape character assessments in the context of the site. This is also supported by a series of figures and maps included in Appendix 8.1 to 8.3.
Havant Borough Council Landscape team	Are on the whole satisfied with what has been set out in the scoping report, providing the LVIA is carried out in accordance with the Guidelines for Landscape and Visual Impact Assessment (published by the Landscape Institute and Institute of Environmental Management and Assessment, Third Edition, dated 2013). Reference to published HBC landscape character assessment – we wish to draw your attention to the Havant Borough Townscape, Landscape and Seascape Character Assessment (HBTLSA), which can be accessed following the link below: http://www.havant.gov.uk/gaps-between-settlements-and-landscape-studies/hava	Comments are noted. Details on the methodology and guidance are included in Chapter 8 – LVIA.
Water, Flood Risk and Drainage		
Havant Borough Council 18 th April 2018	There is existing evidence of high levels of nitrogen and phosphorus in the water environment with evidence of eutrophication at some designated sites and the EIA should consider the impacts of the development on the water environment.	Considered within Chapter 9 – Ecology.

2.3 ASSESSMENT CRITERIA

Overview

- 2.3.1
- The assessments presented in this ES have considered the potential for significant environmental impacts to affect the baseline conditions as a direct/indirect result of the Proposed Development. The baseline conditions are defined as the existing state of the environment and how it may develop in the future in the absence of the proposals. This is a requirement of the EIA Regulations which in Schedule 4, Paragraph 3 require a description of the aspects of the environment likely to be significantly affected by the development (HMSO, 2017).
- 2.3.2
- Predictions are necessary when forecasting future impacts and, in order to ensure that predictions are as accurate as possible. The EIA Regulations which in Schedule 4, Paragraph 6 require a description of the applicant or appellant of the forecasting methods used to assess the effects on the environment (HMSO, 2017). Assessments have been undertaken in accordance with best practice guidelines published by the relevant professional bodies.
- 2.3.3
- Where there is no topic specific guidance available, a common framework of assessment criteria and terminology has been developed drawing upon Tetra Tech’s experience of undertaking EIA, for the presentation of predicted impacts. This is based on a widely used ‘matrix approach’ to environmental assessment which is based on the characteristics of the impact (magnitude and nature) and the sensitivity of the receptor, as described further below. This is known as a ‘Type 3 assessment framework’ by Wood (2008). It is recognised that the level of transparency in the approach is comparatively high, with the sensitivity framework incorporating useful examples and the descriptors serving to provide a fuller account of decision factors (Wood, 2008). Therefore, the approach does go some way to enhance the transparency of the assessment in the sense that the reader is potentially in a better position to ‘calibrate’ the language terms used by experts (Wood, 2008).

Receptor Sensitivity

- 2.3.4
- The sensitivity of a receptor refers to its importance, i.e. its environmental value/attributes. This may include a feature’s level of statutory designation, for example if a site has a European designation (e.g. Special Area of Conservation) it will generally be regarded as more important/sensitive than another site with a national or local designation (e.g. Local Nature Reserve). The terminology defining sensitivity can vary according to discipline or the methodology being used. However, within this ES sensitivity is generally determined as **Very High, High, Medium** or **Low**.
- 2.3.5
- Each individual chapter within this ES considers the attributes of specific receptors in more detail.

Determining Impact Magnitude

- 2.3.6
- Magnitude is determined by predicting the scale of any potential change in the baseline conditions. Where possible, magnitude has been quantified; however where this has not been possible a fully defined qualitative assessment has been undertaken. The assessment of magnitude is carried out considering any ‘design mitigation’, i.e. relevant design features, in the proposal forming part of the development description. This may result in the need for ‘additional mitigation’ i.e. that which

results from the EIA process, to reduce impacts further. Therefore, the magnitude of impacts both before and after ‘additional mitigation’ has been stated.

Determining the Significance and Nature of Effects

- 2.3.7
- To determine the significance of effect the assessor combines the predicted magnitude of impact (change) with the assigned sensitivity (value) of the receptor. This is shown as an equation in Diagram 1.
- 2.3.8
- Table 2.3 shows how the interaction of magnitude and sensitivity can be combined to determine the significance of an environmental effect on a scale (note this does not define whether an impact is significant or not, see below). Deviation from the terminology may occur in cases where an established methodology requires this, which will be explained in relevant chapters.
- 2.3.9
- The definition of at what level of significance a significant impact arises is provided within the topic method section of each chapter of the ES. This is important in the context of the EIA Regulations which in Schedule 4, Paragraph 5 require a description of the likely significant effects of the development (HMSO, 2017) which should cover the direct effects and any indirect, secondary, cumulative, short medium and long-term, permanent and temporary, positive and negative effects of the development. Therefore, environmental effects are described as:
 - Adverse or beneficial
 - Direct or indirect
 - Temporary or permanent
 - Short, medium or long term
 - Reversible or irreversible
 - Cumulative and in-combination.
- 2.3.10
- Each individual chapter within this ES considers the nature of effects and significance of effects and their definitions in more detail as required.

Table 2.3 Example Significance of Effects Matrix

		Magnitude of Impact			
		Substantial	Moderate	Slight	Negligible
Sensitivity of Receptor	Very High	Major	Major	Intermediate	Neutral
	High	Major	Intermediate	Minor	Neutral
	Medium	Major	Intermediate	Minor	Neutral

	Low	Intermediate	Minor	Neutral	Neutral
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- EIA Assumptions and Limitations**
- 2.3.11 The following key assumptions have been made in preparing the ES:
- 2.3.12 All legislative requirements will be met.
- 2.3.13 The pre-additional mitigation effects assessment reported within this ES assumes the project will be constructed in accordance with industry standard techniques and currently enforced mandatory minimum standards, and assumes suitably experienced contractors will be appointed to design, construct and commission the development. The base assessment is reported on the design, construction, and operation of the development as provided within the description given in Chapter 3.
- 2.3.14 The potential environmental effects of the construction phase will be controlled through a Construction Environmental Management Plan (CEMP) which would be prepared prior to commencement of construction and would contain all the design and additional mitigation as identified and reported within this ES and any subsequently agreed requirements, expected to be enforced by planning conditions. The details of these documents would be agreed with the LPA prior to construction commencing.
- 2.3.15 Where further assumptions have been made for individual topic assessments these will be identified within the relevant topic chapters.
- 2.3.16 Any limitations or uncertainties associated with impact prediction or the sensitivity of receptors due to the absence of data or other factors will give rise to uncertainty in the assessment. Schedule 4, Paragraph 6 of the EIA Regulations requires that an ES state whether any “difficulties (technical deficiencies or lack of know-how) were encountered by the Applicant in compiling the required information.” (HMSO, 2017). In this case any limitations in the assessments are referred to in the relevant chapter of this ES.

- Proposed Mitigation Measures**
- 2.3.17 A description of the mitigation measures is one of the requirements of the EIA Regulations. Schedule 4, Paragraph 7 of the EIA Regulations sets out the information that must be included in an ES and this includes
- 2.3.18 “a description of the measures envisaged to avoid, prevent, reduce and if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements” (HMSO, 2017).
- 2.3.19 In order to reduce the magnitude of the impact and therefore the significance of the environmental effect, where possible, mitigation measures have been identified. The following hierarchy, and terminology, has been used when determining mitigation measures as depicted in Diagram 1:

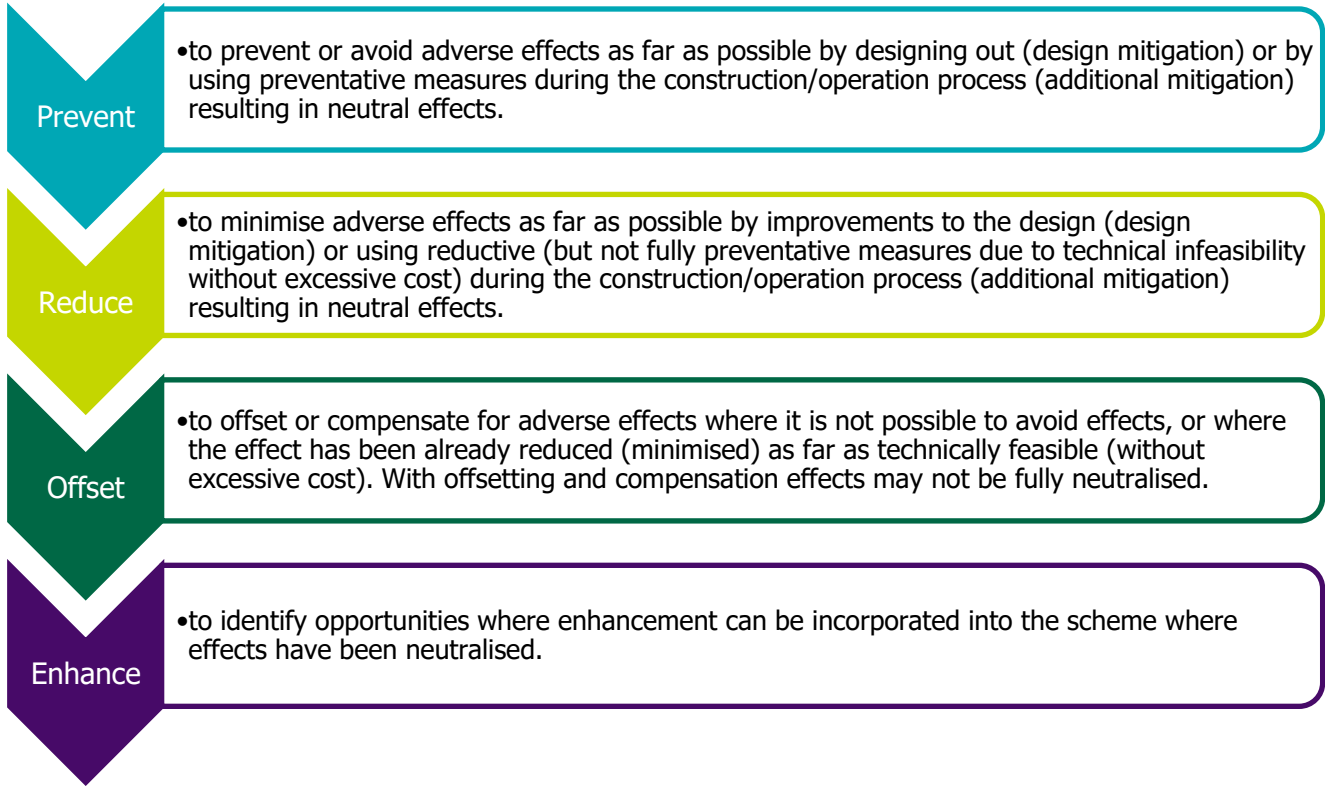


Diagram 1 The mitigation hierarchy applied in EIA

- 2.3.20 When describing mitigation measures, they generally fall under two headings, ‘design mitigation’ and ‘additional mitigation’.
- 2.3.21 Design mitigation is where the design of the site has been altered to take into account a particular issue or accommodate an important feature. This will generally be part of the project description but will also be identified in the relevant chapter under the ‘Mitigation within the Submitted Design’ sub heading.
- 2.3.22 The strategic development of the masterplan for the Proposed Development has involved the consideration of potential impacts of alternative designs and layouts of the site. This is described in Chapter 4 of this ES. In addition, specific features of the Proposed Development have been included in the fixed design of the site, structures and buildings to avoid or reduce impacts. Therefore, the mitigation of impacts has been integral to the design process undertaken and was facilitated by:
- Early identification of the baseline environment;
 - Preliminary identification of potential significant impacts by technical specialists; and
 - Engagement with key stakeholders including statutory and non-statutory organisations and the public through the consultation strategy.
- 2.3.23 Additional mitigation is all other mitigation that has been identified as a result of the impact assessment that has been undertaken on the fixed design scheme. Clear details of when and how the mitigation measures identified in the chapter will be implemented, have been given. An assessment of ‘residual’ magnitude is conducted following the determination of suitable additional mitigation

measures. The subsequent assessment of residual significance identifies the residual environmental effects, these being the final outcome of the EIA process. Statements are made of whether residual effects are significant or not.

2.4 REFERENCES

- The Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- Chartered Institute of Ecology and Environmental Management [CIEEM], 2018. Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal – Second Edition.
- Institute of Environmental Assessment [IEA], (1993). Guidelines for the Environmental Assessment of Road Traffic.
- Institute of Environmental Management and Assessment [IEMA] (2004). Guidelines for Environmental Impact Assessment. IEMA Perspectives.
- Rudland, D J et al (2001) Contaminated Land Risk Assessment: A Guide to Good Practice, CIRIA C552.
- The Landscape Institute / Institute of Environmental Management and the Countryside Agency, 2013. Guidelines for Landscape and Visual Impact Assessment. Third Edition.
- Wood G., 2008. Thresholds and criteria for evaluating and communicating impact significance in environmental statements: ‘See no evil, hear no evil, speak no evil’? Environmental Impact Assessment Review. Volume 28. 22-38