

Ford Airfield

Environmental Impact Assessment Scoping Report

November 2018

Ford Airfield

Environmental Impact Assessment Scoping Report

Prepared on behalf of Wates Developments Ltd and Redrow Homes Ltd

Project Ref:	23885/A5/EIAScoping		
Status:	Draft for input	Draft for input	Final Issue
Issue/Rev:	01	02	03
Date:	August 2018	September 2018	November 2018
Prepared by:	Neil Purvis	Neil Purvis	Neil Purvis
Checked by:	Elizabeth Davies	Elizabeth Davies	Elizabeth Davies

Barton Willmore LLP
7 Soho Square
London
W1D 3QB

Tel: 020 7446 6888



COPYRIGHT

The contents of this document must not be copied or reproduced in whole or in part without the written consent of Barton Willmore LLP.

All Barton Willmore stationery is produced using recycled or FSC paper and vegetable oil based inks.

CONTENTS

1	INTRODUCTION	1
2	SCOPING	4
3	POPULATION AND HUMAN HEALTH	7
4	LANDSCAPE AND VISUAL EFFECTS	9
5	ARCHAEOLOGY AND BUILT HERITAGE	12
6	BIODIVERSITY	14
7	TRANSPORT & ACCESS	17
8	AIR QUALITY	20
9	NOISE & VIBRATION	23
10	AGRICULTURAL LAND	25
11	WATER RESOURCES AND FLOOD RISK	27
12	CUMULATIVE EFFECTS AND CONSULTATION	30
13	ENVIRONMENTAL STATEMENT STRUCTURE	33

APPENDICES

APPENDIX 1:	SITE LOCATION PLAN
APPENDIX 2:	DETAILED UNEXPLODED ORDNANCE RISK ASSESSMENT (FELLOWS, JULY 2018)
APPENDIX 3:	HERITAGE DESK BASED ASSESSMENT (ORION, NOVEMBER 2016)
APPENDIX 4:	GEOPHYSICAL SURVEY (MAGNITUDE SURVEYS, SEPTEMBER 2018)
APPENDIX 5:	PHASE 1 HABITAT SURVEY (ARTEMIS, NOVEMBER 2016)

1 INTRODUCTION

- 1.1 This report has been prepared by Barton Willmore, IEMA qualified assessors, on behalf of Wates Developments Ltd and Redrow Homes Ltd. The report accompanies a request for an Environmental Impact Assessment (EIA) Scoping Opinion from Arun District Council (ADC) in accordance with Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended)¹ (the "EIA Regulations").
- 1.2 In accordance with the EIA Regulations, a person who is minded to make an EIA application may ask the relevant planning authority to state in writing their opinion as to the information to be provided in the Environmental Statement (a "scoping opinion").
- 1.3 Regulation 15 (2) states that a scoping request must be accompanied by:
- (i) a plan sufficient to identify the land;
 - (ii) a brief description of the nature and purpose of the development, including its location and technical capacity;
 - (iii) an explanation of the likely significant effects of the development on the environment; and
 - (iv) such other information or representations as the person making the request may wish to provide or make.

The Site

Site Context

- 1.4 The site (see Site Location Plan at Appendix 1), is located within the administrative boundary of ADC. The village of Ford is located immediately to the north east of the site, with the villages of Climping and Yapton located to the immediate south east and west of the site. The town of Littlehampton is located approximately 1.5km to the east of the site while Bognor Regis is located approximately 2km to the south west of the site.
- 1.5 Agricultural fields are predominantly located to the north and north west of the site. The very northern part of the site is bound by Ford Lane. Ford train station is located approximately 700m to the northeast of the site.

¹ SI 2017/571 as amended by SI 2018/695

- 1.6 The east of the site is bound by Ford Road beyond which is agricultural land. The River Arun is located approximately 500m to the east of the site.
- 1.7 The southeast of the site is bound by a recycling facility (operated by Viridor) and Rudfield Industrial Estate while the very south of the site is bound by residential properties, located within Climping. HM Prison Ford is located approximately 200m to the southeast of the site.
- 1.8 The west of the site is bound by residential properties located within Yapton. Ford Industrial Estate is also located adjacent to the western site boundary and comprises a number of associated commercial and light industrial warehouse buildings. Yapton Road (B2233) borders the site to the south west, with agricultural fields beyond. National Cycle Route 2 also runs along Yapton Road.
- 1.9 A Waste Water Treatment Works (operated by Southern Water) is located by the central part of the site and Waste Management Facility (operated by Grundon) is located immediately north of the Water Treatment Plant. Both facilities are located outside the site boundary.
- 1.10 The site is not subject to any ecology, heritage or landscape designations. There are a number of listed buildings in the immediate surrounding area, including the Grade I Listed Parish Church of St Mary, and the Grade II Listed The Vicarage, Atherington House And Ford Place And Southdown House And The Lodge, Barn To The West Of Nos 1 And 2 Church Farm Cottage, and New House Farmhouse. The Medieval earthworks located east and southeast of St Mary's Church (Scheduled Monument) is also located approximately 500m to the southeast of the site.
- 1.11 Further designations in the wider area include Climping Beach Site of Special Scientific Interest (SSSI), located approximately 2.2km to the southeast of the site. The South Downs National Park is located approximately 2.5km to the north of the Site. Upstream of the site lies the Arun Valley, which consists of three Sites of Special Interest (SSSIs) in an area of wet meadows on the floodplain of the River Arun. The nearest of these to the site is Arundel Park SSSI, located approximately 4km north of the site.
- 1.12 According to the Gov.UK website the majority of the site is located in Flood Zone 1 (low risk of flooding). A small area to the north east of the site is located in Flood Zone 2 (medium risk of flooding). The site is not located within an Air Quality Management Area, which indicates that air quality within the locality will be generally good.

Site Description

- 1.13 The site extends to approximately 94.42 ha and predominantly comprises an area of land

formerly in use as an airfield. Large areas of the site now comprise agricultural fields, separated by hedgerows and trees. An area within the north west of the site is occupied by a trucking company.

- 1.14 Part of the north to south and east to west runways of the former airfield are located on the site as well as part of the south west section of the perimeter track. The runways are used for year-round Sunday markets and Car boot sales (every Thursday, Saturday and Sunday). It is anticipated that a separate planning application will be submitted for the reconfiguration of the market. Located to the northern end of the north-south runway are two large warehouse buildings, in use as the Arun Sports Arena and Flying Fortress play centre.
- 1.15 The perimeter track provides connectivity between the villages of Yapton (to the west of the site) and Climping (to the south of the site). Two public footpaths also pass through the northern and southern parts of the site. The northern footpath provides connection between the villages of Ford (to the northeast of the site) and Yapton. The southern footpath connects the villages of Climping and Yapton (to the west of the site).

The Proposed Development

- 1.16 The proposed development comprises the development of up to 1,500 dwellings, up to 37,000 sqm of employment floorspace, a local centre including retail, commercial and community facilities, primary school, nursery, a care/retirement home, healthcare facilities, public open space, new sports pitches and facilities, and associated access, infrastructure, landscape and ancillary works.
- 1.17 In terms of buildings heights, it is anticipated that the maximum height of the new residential dwellings will be up to 3 storeys in height.

2 SCOPING

- 2.1 This scoping exercise has been informed by desk-based research, professional judgement and other information available for the site. Table 1 provides a summary of the scoping exercise.

Table 1: EIA Scoping Summary

Topics	Potential Construction Phase Effects	Potential Operational Phase Effects	Likely Significant Effects (Pre-Mitigation)	Comments
Population and Human Health	✓ - T	✓ - P	✓	Chapter to be prepared.
Landscape and Visual Effects	✓ - T	✓ - P	✓	
Archaeology and Built Heritage	✓ - T	✓ - P	✓	
Biodiversity	✓ - P/T	✓ - P	✓	
Transport & Access	✓ - T	✓ - P	✓	
Air Quality	✓ - T	✓ - P	✓	
Noise & Vibration	✓ - T	✓ - P	✓	
Agricultural Land	✓ - P/T	x	✓	
Water Resources and Flood Risk	✓ - T	✓ - P	✓	
Land Contamination	✓ - T	✓ - P	✓	Topic scoped out of the ES.
Wind Microclimate	x	x	x	
Daylight, Sunlight and Overshadowing	x	x	x	
Lighting	x	x	x	
Waste	x	x	x	
Climate Change and Greenhouse Gases*	x	x	x	
Accidents and Disasters	x	x	x	

Key: ✓ Likely Significant Effect / x No Likely Significant Effect.
T – Temporary Effect / P – Permanent Effect

Environmental Disciplines Scoped Out

- 2.2 Further information on the topics scoped out of the EIA in Table 1 is set out in the following sections.

Land Contamination

- 2.3 A Geo-Environmental Assessment Report (ref: 29228-R01-(00)) has been undertaken for the Site and will be submitted alongside the planning application. The report assesses the potential for contamination associated with the Site's former and current land uses. The findings of the survey found that the Site is virtually free from contamination. The survey

identified an inert landfill consisting of a raised earth mound in the northeast portion of the Site and soil testing carried out recorded elevated concentrations of hydrocarbons (PAHs) and the presence of asbestos within the inert landfill. Very little contamination was recorded across the remainder of the Site with only two soil samples recording a single elevated concentration of lead and a marginally elevated concentration of PAHs. However, the report states that these samples are unlikely to pose a risk to future site users. Further investigation will be carried out in order to fully characterize the ground conditions across the Site and if necessary a remediation strategy will be developed to ensure that there is no risk to future site users or the surrounding environment. Based on the above, likely significant effects are not anticipated and this topic can be scoped out of the ES.

Wind Microclimate

- 2.4 Due to the low-rise nature of the proposed buildings likely significant wind effects are not anticipated and this topic has been scoped out of the ES.

Daylight, Sunlight and Overshadowing

- 2.5 The scale and massing of the proposed development will not cause changes to daylight or sunlight availability or cause overshadowing of residents or amenity space. It is therefore proposed to scope this discipline out of the ES.

Lighting

- 2.6 The proposals are not anticipated to produce a significant lighting impact. Lighting will be designed carefully in accordance with relevant British Standards and Institute of Lighting Professionals (ILP) (2011) Guidance Notes for the Reduction of Obtrusive Light. The effect of lighting from the proposed development will be considered within the Landscape and Visual and Biodiversity chapters of the ES. As such, this topic has been scoped out of the ES.

Waste

- 2.7 The proposals are not anticipated to produce significant amounts of waste during construction and operational waste will be managed in accordance with ADC requirements; therefore this topic has been scoped out of the ES.

Climate Change and Greenhouse Gases

- 2.8 Climate change and greenhouse gases, as a separate chapter, has been scoped out of the ES.

The introductory chapters will, however, summarise the findings of the ES relevant to climate change and the climate change adaptations integrated into the proposed development. This will draw upon technical chapters and reports, including the Flood Risk Assessment and Air Quality Assessment, and summarise the sustainability and energy provisions included within the proposed development. For a development of this nature this is considered a suitably proportionate approach.

Accidents and Disasters

- 2.9 The proposed development is primarily residential in nature and also includes commercial, educational and community uses. These uses are not considered to be hazardous and the site is not in a location which is at risk of disasters and instability or earthquakes. The risk of flooding will also be assessed within the Water Resources and Flood Risk chapter, as detailed below.
- 2.10 A detailed Unexploded Ordnance (UXO) Risk Assessment has been undertaken for the site (Appendix 2) which identifies that the site is within an area of medium risk of UXO (air dropped weapons) being present. The risk from all other UXO is considered low. The assessment recommends a number of mitigation measures to be undertaken prior to development and implementation of these will ensure that the UXO risk is managed and likely significant effects will not occur.
- 2.11 During construction, which is considered the only element which could be considered as hazardous, all applicable health and safety legislation will be complied with. This topic has been scoped out of the ES.

Environmental Disciplines Scoped In

- 2.12 For each of the topics scoped into the assessment further information on the details to be included in the assessment and the methodology to be employed are set out in the following sections.

3 POPULATION AND HUMAN HEALTH

- 3.1 An assessment of the potential effects of the proposed development on population and human health in relation to the local and wider area will be undertaken. This will include construction phase (temporary) and operational phase (permanent) effects. The issues to consider are anticipated to include changes to, and effects on:

- Population and housing;
- Employment – direct and indirect job creation through supply chain multiplier effects;
- Local expenditure;
- Education and training; and
- Primary healthcare infrastructure.

Approach

- 3.2 Baseline information will be collated in relation to population, housing, local expenditure, employment, education and primary healthcare facilities (namely GP and dental practice provision and primary and secondary school capacities).
- 3.3 The assessment will be undertaken using the following methodology:
- Baseline review using accepted Government sources such as census, Labour Force Survey and NOMIS. In addition, a review will also be undertaken of information available from Department for Education, annual schools census data, NHS, Digital Annual GP census data;
 - Review of the policy context - at local and national level;
 - Assessment of the significance of impacts using professional judgement and, where appropriate, published guidance such as the GVA Grimley Ltd for the Homes and Communities Agency Employment Density Guidance (2015) and Additionality Guide Fourth Edition (2014), where applicable; and
 - Development of mitigation measures, if and where appropriate.
- 3.4 Wider human health considerations that fall within the wider scope of the ES will be considered and summarised. This will draw on the conclusions of other ES chapters relevant to human health, including noise and transport.
- 3.5 On the basis that the proposed development will comprise public open space, new sports pitches and facilities, likely significant effects on open space provision are not anticipated

from the proposed development. Therefore, the consideration of open space provision has been scoped out of the assessment.

Summary

- 3.6 Table 2 summarises the socio-economic effects to be included ('scoped in') for detailed assessment in the Environmental Statement (ES).

Table 2: Population and Human Health Effects

Receptor	Effects	Scoped In
Population	Long term increase in population	✓
Employment	Increase in short term construction employment and long-term operational employment. Effect on training.	✓
Local Expenditure	Increase in local expenditure due to construction workforce spending and an increase in occupational expenditure	✓
Education	Increased demand for education facilities in the operational phase, and effects relating to the provision of education facilities. Effect on training.	✓
Human Health	Potential effects on human health from the proposed development including noise, air quality and transport.	✓
Healthcare	Demand for primary healthcare infrastructure during the operational phase and effects relating to the provision of healthcare facilities.	✓

4 LANDSCAPE AND VISUAL EFFECTS

- 4.1 An assessment will be undertaken of the likely significant effects of the proposed development on landscape and views (a Landscape and Visual Impact Assessment (LVIA)).

Baseline

- 4.2 This section summarises the conclusions of preliminary desk-based research carried out in respect to the landscape character and visual context of the site. The site is described in Section 1 of this report.
- 4.3 ADC's web site states that the Arun Landscape Study 2006 (produced for ADC by Hankinson Duckett Associates) does not constitute ADC policy, but will form part of the evidence base used in preparing the emerging Local Development Framework. This study would be used to inform the baseline landscape character.
- 4.4 The site lies within Local Landscape Character Area (LCA) 29 North of Yapton Coastal Plain defined by The Arun Landscape Study. LCA 29 is described as:
- *"Predominately arable fields of varying size and enclosure, with parkland and recreation adjacent to Yapton;*
 - *Bounded by woodland and railway line to the north;*
 - *Abuts Ford to the east; and*
 - *Urban influence along Ford Lane which runs through the middle of the character area".*
- 4.5 The Arun Landscape Study states that LCA 29 has Substantial Landscape Sensitivity, Slight Landscape Value and Low / Medium Landscape Capacity.
- 4.6 Visual receptors that may be affected by the proposed development which lie within or close to the site include users of public footpaths which pass through the northern and southern parts of the site, users of the B2233 and minor roads which run along boundaries of the site, users of National Cycle Route 2 which runs along the B2233 and local residents within local settlements including the villages of Ford, Climping and Yapton. Visual receptors within the wider area include users of the Public Right of Way (PRoW) network, people on roads and within settlements and other publicly accessible locations within the study area which will be agreed with ADC.
- 4.7 No designated landscapes that have the potential to be affected by the proposed development

have been identified.

Approach

- 4.8 The assessment would be undertaken in accordance with Landscape Institute and Institute of Environmental Management and Assessment, 'Guidelines for Landscape and Visual Impact Assessment' (Third Edition, 2013) and would provide a review of the existing landscape planning policy context, published sources of landscape character and visual appraisal of the study area and an assessment of the potential landscape and visual effects of the proposed development, both at the construction and operational phases.
- 4.9 A study area for the LVIA will be defined. Baseline information for the study area will be collated, which will include topography, landscape planning policy designations, published sources of landscape character, designated landscapes, typical photograph viewpoints and any other relevant information.
- 4.10 Assessments will be made during construction; on completion; and 15 years thereafter, with the benefit of planting mitigation.
- 4.11 In accordance with current good practice, this assessment will address landscape and visual effects as separate issues. Landscape effects relate to both the effect on the physical features of the site, and on the landscape character of the site and surrounding area. Visual effects relate to effects on views of people from the surrounding area.
- 4.12 The landscape and visual impact assessment will include consideration of the likely effects of lighting associated with the proposed development.
- 4.13 The study area and a list of representative viewpoints for assessment would be agreed with ADC.
- 4.14 In summary the assessment will:
- Define the study area for the LVIA and identify representative viewpoints;
 - Assess the susceptibility to change of the landscape and visual receptors (the receiving environment);
 - Assess the magnitude of landscape and visual effects;
 - Assess the significance of landscape and visual effects; and
 - Identify requirements for any mitigation measures.

Summary

- 4.1 Table 3 summarises the landscape and visual receptors identified for inclusion in the assessment.

Table 3: Landscape and Views

Receptor	Effects	Scoped In
Views from publicly accessible locations, including roads, footpaths and public open spaces	Visual effects on users	✓
Landscape features, including existing vegetation	Landscape effects on the landscape resource	✓
Landscape Character	Effects on landscape character areas	✓

5 ARCHAEOLOGY AND BUILT HERITAGE

- 5.1 An assessment will be undertaken of the likely significant effects of the proposed development on the environment with respect to archaeology and built heritage.

Baseline

- 5.2 The site has been the subject of a heritage desk-based assessment (Appendix 3) which has been undertaken in accordance with the CIfA Standards and Guidance for Historic Environment Desk Based Assessments (2017). This study has established that archaeological investigations undertaken previously within the site have recorded Bronze Age, Iron Age and Roman settlement remains. The site is considered to have potential to contain further remains of these periods. The site also contains the remains of the former WWI and WWII airfield. The site is considered to have low potential for remains of all other archaeological periods.
- 5.3 The site has been subject to a geophysical survey (Appendix 4) which has been undertaken in accordance with the CIfA Standards and Guidance for Archaeological Geophysical Survey (2014). This survey has revealed numerous anomalies of diverse origins. The results are dominated by the remains and associated debris of the WWI and WWII Ford Airfield, including runways, hangars and tie-down areas. The disused Portsmouth to Arundel canal has been identified, as have a number of former field boundaries, footpaths and sites of Post-Medieval farm buildings; these are all well-correlated with multiple historic maps. Four different previously unrecorded areas of archaeological activity have been identified, expanding the archaeological understanding of the area. These are likely to be Prehistoric to Romano-British in date. They are in appearance not associated to each other; however, it is feasible more recent military usage of the fields may have truncated a larger settlement area. Limited modern and natural activity has also been identified.
- 5.4 As stated in Section 1, there are no listed buildings within the site. There are five listed buildings within the wider area of the site. These are the Parish Church of St Mary (Grade I), The Vicarage (grade II), Atherington House and Ford Place and Southdown House and The Lodge (grade II), Barn To The West Of Nos 1 And 2 Church Farm Cottage (grade II), and New House Farmhouse (grade II). The site is considered to lie beyond the settings of all of these designated heritage assets, except for Atherington House, as there is no intervisibility between them and the site. A small part of the central northern part of the site is considered to be within the setting of Atherington House where currently the industrial buildings at the northern end of the site can be seen from parts of the garden of the house. These buildings have a negative contribution to the significance of the house.

Approach

5.5 Initial baseline information was obtained using best practice guidelines, including the National Planning Policy Framework (NPPF) and PPG, Institute for Archaeologists (CIfA) guidelines, Historic England guidelines, local planning authority guidance and other guidance from statutory and non-statutory bodies where applicable. The baseline information examines the following:

- Relevant local planning policy;
- Relevant guidance found in the NPPF and PPG;
- Geology and topography, including previous site specific geotechnical information;
- A search of the Historic Environmental Record (HER) centred on the site and extending 1km from the boundary of the site (the study area);
- Archaeological and historical background (including published and unpublished sources), drawn from a variety of sources including the British Library and ADC;
- The results of on-site and adjacent archaeological investigations; and
- A site walkover survey.

5.6 In accordance with the NPPF and PPG, both designated and undesignated heritage assets will be considered:

- Scheduled Monuments;
- Archaeological remains;
- Listed Buildings; and
- Conservation Areas.

5.7 Table 4 summarises the archaeology and built heritage effects identified for inclusion in the assessment.

Table 4: Archaeology and Built Heritage

Receptor	Effects	Scoped In
Scheduled Monuments	• Direct impacts on Archaeology – potential to damage or destroy archaeological remains • Impact on setting • Disturbance (visual, noise)	✓
Archaeological Remains		✓
Listed Buildings		✓
Conservation Areas		✓

6 BIODIVERSITY

- 6.1 An assessment will be undertaken of the likely significant effects of the proposed development on the environment with respect to biodiversity, including ecology and nature conservation.

Baseline

- 6.2 A detailed understanding of the ecological importance of the site has been obtained through desk study and site survey. A Phase 1 Habitat Survey was undertaken by Artemis Ecological Consulting Limited (Artemis) in July and August 2015 and August 2016 (Appendix 5) and further, species-specific surveys undertaken by Ecological Survey and Assessment Limited (ECOSA) between May and October 2017, which will be submitted as part of the planning application. Species specific surveys undertaken include:

- Bat transect surveys;
- Bat remote detector surveys;
- Dormouse surveys;
- Breeding bird surveys;
- Great crested newt habitat suitability index assessment;
- Great crested newt eDNA surveys;
- Reptile surveys; and
- Badger surveys.

- 6.3 There are no European or nationally designated sites on or directly adjacent to the site, nor within two kilometres of the site boundary. The site does not lie within the impact zone of any nearby international designated sites.

- 6.4 The majority of the site contains arable land which is of limited ecological value.

- 6.5 The following reports will be submitted as part of the Environmental Statement:

- A Phase 1 Habitat Survey Report; and
- An Ecological Impact Assessment Report.

Approach

- 6.6 A qualitative and quantitative ecological impact assessment will be undertaken, following the principles set out in the CIEEM publication 'Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland' (Second Edition, 2016). This will include an assessment of

cumulative and in-combination effects, details of appropriate mitigation measures and details of any residual effects (should any exist following mitigation), following consultation with the relevant statutory and non-statutory organisations. The findings of the ecological survey work will feed into the scheme design to ensure impacts are avoided where possible, in line with the CIEEM mitigation hierarchy. The assessment will also provide recommendations for enhancement, in line with local and national planning policy.

Scoping

6.7 Consideration will be given to the following potential effects:

- Construction
 - Temporary Land-take;
 - Habitat removal and damage;
 - Disturbance (visual, noise, Vibration);
 - Direct impacts (injury, killing) to species;
 - Hydrology and pollution (dust generation, pollution of aquatic habitats);
 - Lighting (construction); and
 - Construction site hazards.
- Operation
 - Permanent Land-take;
 - Habitat creation and enhancement measures within the development layout;
 - Air Quality / Pollution and Hydrology;
 - Urbanisation (e.g. movement, lighting, noise, domestic pets and predation, fly-tipping)
 - Permanent Lighting; and
 - Visitor pressure (disturbance / trampling) on retained on-site habitats and nearby designed sites.

Summary

6.8 Table 5 provides a summary of the key issues to be considered in relation to Biodiversity.

Table 5: Biodiversity Effects

Receptor	Effects	Scoped In
Ecological Designations	Construction: • Land-take • Habitat removal and damage	✓
Habitats	• Disturbance (visual, noise, vibration)	✓

Receptor	Effects	Scoped In
Species	• Direct impacts (injury, killing) to species; • Hydrology and pollution (dust generation, pollution of aquatic habitats) • Lighting • Construction site hazards Operation • Land-take • Habitat creation and enhancement measures within the development layout • Air Quality / Pollution and Hydrology • Urbanisation (e.g. movement, lighting, noise, domestic pets and predation, fly-tipping) • Visitor pressure (disturbance / trampling) on retained on-site habitats and nearby designed sites.	✓

7 TRANSPORT & ACCESS

- 7.1 An assessment will be undertaken of the likely significant effects of the proposed development on the environment with respect to transport and access.
- 7.2 The proposed development has been discussed with the local highway authority West Sussex County Council (WSCC) and Highways England (HE) who are responsible for the Strategic Route Network (The A3), including the A27.

Baseline

- 7.3 The scoping discussions have included agreeing appropriate parameters to establish baseline conditions, which will include *inter alia*:
- Existing traffic flows on the local and wider highway network, to be determined using traffic surveys and potentially the strategic transport modelling behind the Arun Transport Study², which supports the emerging local plan;
 - Existing highways conditions, to be determined based on on-site observations, discussions with WSCC and HE and the Arun Transport Study;
 - Existing site uses, their access arrangements and travel patterns, to be determined using surveys and/or the TRICS trip generation database;
 - Existing travel patterns in the local area, to be determined using 2011 Census data and the evidence base for the emerging local plan (e.g. the Community Profile for Ford Parish); and
 - Existing opportunities for walking, cycling and public transport use, to be determined based on site observations and a desktop review.

Approach

- 7.4 A Transport Assessment (TA) will be prepared to support the planning application. The TA will be prepared in accordance with Planning Practice Guidance (PPG) and the three tests set in Paragraph 32 of the NPPF:
- Will the opportunities for sustainable travel be appropriately taken up?;
 - Will safe and acceptable access be provided?; and
 - Will the residual impact, cumulative with other development be unacceptable (i.e.

² Systra. Arun Transport Study 2016

'severe')?.

- 7.5 The TA has been subject to detailed scoping discussions with WSCC and HE. Through the Scoping process, the study area for the TA will be agreed, as will the parameters relating to traffic generation, distribution and assignment.
- 7.6 The TA will assess the existing highway/transport conditions in the vicinity of the site and identify a highway and transportation mitigation package based upon the impact arising from the proposed development. The TA will be used to inform the ES chapter.
- 7.7 The ES Chapter will assess the likely significant effects on the road traffic generated by the proposed development. This requires assessment against different criteria as set out in the Institute of Environmental Assessment's (now IEMA) *'Guidelines for the Environmental Assessment of Road Traffic'*.
- 7.8 The following topics will be assessed for the construction and operational phases:
- Driver severance and delay;
 - Pedestrian and cycle severance and delay;
 - Pedestrian and cycle amenity;
 - Fear and intimidation;
 - Accidents and safety; and
 - Hazardous loads.
- 7.9 The assessment will be divided into two distinct phases in accordance with best practice as set out in the IEMA guidelines, to separately consider construction traffic and development (operational) traffic.
- 7.10 The extent of transport impact will be determined using the significance criteria for each topic area set out in the IEMA guidelines. The assessment will be based on the net change in journeys as a result of the proposed development and any infrastructure improvements delivered as part of the proposed development. The significance criteria will establish the magnitude of any beneficial or adverse effects the proposed development will have on the transport network.

Summary

- 7.11 Table 6 summarises the transport and access receptors identified for inclusion in the

assessment.

Table 6: Receptors Included in the Transport & Access Assessment

Receptor	Effects	Scoped In
Existing residents	Vibration impacts on existing properties due to HGVs; severance effects on existing communities; risks from hazardous loads; dust and dirt impacts	✓
Highway network	Net change in driver delay particularly during the peak hours; effect on personal injury accidents	✓
Pedestrians and cyclists	Changes in delay to journeys; impacts on amenity; fear and intimidation impacts; effects on personal injury accidents	✓

8 AIR QUALITY

- 8.1 An assessment will be undertaken of the likely significant impacts of the proposed development on local air quality, including dust and odour. This will consider both the potential impacts of existing sources of pollution on the proposed development as well as the impact of the proposed development on existing air quality in the local community. It will include the impacts of emissions from traffic as well as potential development constraints from the nearby waste and wastewater treatment facilities.

Baseline

- 8.2 The current air quality in the vicinity of the proposed development will be investigated drawing on ADC's Air Quality Status Reports and the Department for Environment, Food and Rural Affairs (Defra's) air quality modelling. Air quality in the immediate vicinity of the site is currently good and no air quality management areas have been declared.
- 8.3 The baseline odour will be assessed using a combination of qualitative and quantitative approaches consistent with the guidance produced by the Institute of Air Quality Management (IAQM). The assessment of impact of the emissions from the Waste Water Treatment Works will be agreed with Southern Water and ADC, and may include dispersion modelling to identify any constraints on development. The potential odour and dust emissions from the adjacent waste facilities (operated by Grundon and Viridor) will be assessed qualitatively using information available from their respective operators however as these facilities process sorted dry recyclables, odour is highly unlikely to be an issue and will be scoped out.

Approach

- 8.4 There are no designated ecological sites of relevance to the Site in relation to air quality impacts.
- 8.5 The air quality officer at ADC has been contacted and the scope and the broad approach of the assessment has been agreed.
- 8.6 The assessment will include the following:
- Review of relevant local air quality monitoring data and Defra's background pollutant maps;
 - Dispersion modelling of the emissions from the Waste water Treatment Works, using a model to be agreed with Southern Water and ADC, to define any odour constraints on the proposed development;

- Qualitative assessment of the impacts of the Grundon and Virador waste facilities on odour and dust on the proposed development using the relevant IAQM guidance;
 - Risk based assessment of the potential impacts during construction using the approach provided in IAQM guidance;
 - Detailed air quality dispersion modelling of emissions from the traffic associated with the proposed development to identify the impact on existing communities;
 - There will be no requirement to assess impacts at ecological sites;
 - The impacts on existing communities will be assessed using IAQM guidance on odour and the Environmental Protection UK and IAQM joint guidance on '*Land Use Planning & Development Control: Planning for Air Quality*'; and
 - The cumulative impacts with other development will also be assessed.
- 8.7 The aim of the risk assessment of the construction impacts on dust and particulate matter (PM₁₀) concentrations is to identify appropriate mitigation measures to be included in a Construction Environmental Management Plan (CEMP).
- 8.8 The air quality impact assessment will predict concentrations of nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}) as these are the pollutants of concern from road traffic.
- 8.9 The modelling of the traffic emissions will be undertaken for three different scenarios, as follows:
- Baseline year;
 - Opening year without the proposed development; and
 - Opening year with the proposed development.
- 8.10 Additional scenarios will be completed if additional assessment of the cumulative impacts from committed developments is required.
- 8.11 The modelling exercise will utilise Annual Average Daily Traffic (AADT) flows for all affected roads from the TA produced for the site. The model will predict the annual mean concentrations for comparison with the relevant UK air quality objectives and the results will be verified using monitoring data.
- 8.12 Mitigation measures will be recommended based on the best practice guidance produced by the Sussex local authorities. The most recent version available at the time of the assessment will be used.
- 8.13 An assessment of the likely significant cumulative air quality impacts with the identified

committed developments will also be undertaken for the construction and operational phases of the proposed development.

Summary

8.14 Table 7 summarises the air quality effects to be included for detailed assessment in the ES.

Table 7: Air Quality Effects

Receptor	Effects	Scoped In
Existing residents	Potential exposure to increased pollution levels during both construction and operation.	✓
Future residents and users of the proposed development	Potential exposure to unacceptable odour during operation.	✓
Future residents and users of the proposed development	Potential exposure to unacceptable dust and particulate matter during construction and operation.	✓
Future residents and users of the proposed development	Potential exposure to unacceptable air quality (i.e. levels above the national objectives) during operation.	✓

9 NOISE & VIBRATION

- 9.1 An assessment of potential effects of the proposed development with respect to noise will be undertaken. This will include the construction phase (temporary) and operational phase (permanent) effects. The potential effects of vibration during the construction phase (temporary) on residential receptors will also been undertaken.
- 9.2 The key considerations in relation to the noise and vibration assessment are as follows:
- Identification of existing noise sensitive receptors adjacent to the site and relevant highways;
 - The baseline noise conditions in the study area;
 - Identification of the significant sources of noise within the vicinity of the study area;
 - Acoustic modelling of noise sources to predict likely noise levels across the site;
 - Assessment of the predicted noise levels against relevant standards and guidance including British Standard (BS) 8233¹, BS 4142² and World Health Organisation (WHO) Community Noise³;
 - The assessment under the above standards and guidance will determine the significance of any effect; and
 - Suitability of the site for proposed noise sensitive uses (to be provided as a supporting appendix to the Noise and Vibration ES chapter).

Baseline

- 9.3 Environmental noise surveys will be undertaken to establish the source strength of existing noise sources in the vicinity of the site and prevailing noise levels at the site.
- 9.4 Baseline traffic data for relevant highways will be obtained from the TA.

Approach

- 9.5 The change in noise levels resulting from additional traffic flows associated with the proposed development will be predicted using IMMI 2017 environmental noise modelling software. The magnitude of the impact will then be assessed in accordance with guidance contained in Design Manual for Roads and Bridges Volume 11 Section 3 Part 7 – HD213/11 Noise and Vibration for the following scenarios:
- Baseline year;

- Opening year without the proposed development;
- Opening year with the proposed development;
- Future year (+15 years of opening) without the proposed development; and
- Future year (+15 years of opening) with the proposed development.

- 9.6 The effects on noise during construction will also be assessed qualitatively in accordance with the British Standard 5228: 2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1: Noise. The focus will be on mitigation measures to be included in a CEMP.
- 9.7 Consideration will be given to the effects of vibration due to construction operations on residential properties with reference to BS 5228: 2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 2: Vibration and BS 6472 Guide to evaluation of human exposure to vibration in buildings Part 1: Vibration sources other than blasting.
- 9.8 Site suitability for residential development will be assessed in accordance with the NPPF and Noise Policy Statement for England, and the associated PPG. British Standard 8233:2014 'Guidance on Sound Insulation and Noise Reduction for Buildings' is the appropriate standard for the design of new dwellings. BS 4142:2014 Methods for Rating and Assessing Industrial and Commercial Sound will be considered where relevant.

Summary

- 9.9 Table 8 summarises the noise and vibration effects to be included for detailed assessment in the ES.

Table 8: Noise & Vibration Effects

Receptor	Effects	Scoped In
Existing residential receptors and community uses	Temporary noise effects during construction, and need for control/mitigation measures.	✓
Vibration sensitive receptors	Temporary vibration effects during construction, and need for control/mitigation measures.	✓
Existing noise sensitive receptors	Permanent noise effects of change in traffic flows associated with development.	✓
Proposed noise sensitive receptors	Permanent noise effects from existing noise sources in the vicinity of the development.	✓

10 AGRICULTURAL LAND

- 10.1 The proposed development would result in the loss of agricultural land, an irreversible effect and one that could result in significant environmental effects; therefore an assessment of the effects of the proposed development on agricultural land would be scoped into the ES. The purpose of the assessment would be to identify the agricultural land quality of the site and to assess what the effects of the proposed development would be in terms of the loss of 'best and most versatile' agricultural land.

Baseline

- 10.2 Provisional land classification maps produced by the Ministry of Agriculture, Fisheries and Food (now Defra) indicates that the site comprises land classified as Grade 1 which is excellent quality agricultural land. The Provisional Maps give an indication of land quality on larger sites but should not be relied on for site specific assessment of land quality. Natural England's (NE) Predictive BMV Land Assessment also classifies the area as having high likelihood of BMV land (>60% area BMV)³.
- 10.3 Part of the site has been subject to post-1988 agricultural land classification (ALC) surveys⁴. This has classified the surveyed land as mostly Grade 2, very good quality agricultural land, with a smaller area of Grade 3a, good quality agricultural land. Based on the provisional land classification maps and the post-1988 survey data, the land qualifies as best and most versatile land. The agricultural land quality based on the desk study will be confirmed following an ALC field survey.

Approach

- 10.4 The approach to be taken will comprise desk studies, including a review of published and unpublished soils and agricultural land quality surveys to determine current information about the site, prior to undertaking a detailed soil auger survey and small pit examination in the field to confirm soil types and additional desk studies/calculations to confirm the ALC grading of the land.

- 10.5 There is a well-established methodology for classifying the quality of agricultural land, set

³ Natural England, (2017). Likelihood of Best and Most Versatile (BMV) Agricultural Land - Strategic scale map London and the South East (ALC019). Retrieved from <http://publications.naturalengland.org.uk/publication/6056482614804480>

⁴ Natural England, (2018), MAGIC, retrieved from <http://www.magic.gov.uk/>

out in guidance issued by the then Ministry of Agriculture, Fisheries and Food in 1988. Agricultural land in England and Wales is graded between 1 and 5, depending on the extent to which climate, physical or chemical characteristics impose long-term limitations on agricultural use. Grade 1 land is 'excellent quality' agricultural land with very minor or no limitations to agricultural use, and Grade 5 is 'very poor quality' land, with severe limitations due to adverse soil, relief, climate or a combination of these. Grade 3 land is subdivided into Subgrade 3a ('good quality' land) and Subgrade 3b ('moderate quality' land).

- 10.6 The principal feature of national policies regarding agricultural land use is the emphasis on safeguarding scarce natural resources in the long-term national interest. Paragraph 112 of the NPPF advises that local planning authorities should take into account the economic and other benefits of best and most versatile quality land when making decisions on development. Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land in Grades 3b, 4 and 5 should be used in preference to higher quality land in Grades 1, 2 and 3a.
- 10.7 The significance of effects on agricultural land will depend on the amount to be lost due to the proposed development. There is little current guidance on what area of loss is considered significant, however, 20ha is the threshold adopted in The Town and Country Planning (Development Management Procedure) (England) Order 2015 for Local Planning Authorities to consult Natural England before granting planning permission for a non-agricultural development that is not consistent with an adopted development plan, which would involve the loss of Grades 1, 2 or 3a agricultural land. This threshold will be taken into consideration in the assessment of the magnitude of impacts.

Summary

- 10.8 Table 9 summarises the agricultural land effects identified for inclusion in the assessment.

Table 9: Agricultural Land Effects

Receptor	Effects	Scoped In
Best and most versatile agricultural land	Change of use of land for non-agricultural development.	✓

11 WATER RESOURCES AND FLOOD RISK

- 11.1 An assessment will be undertaken of the likely significant effects of the proposed development on water resources and flood risk.

Baseline

Topography and Geology

- 11.2 A full topographical survey will be commissioned in order to accurately define the existing ground contours. This survey information will form the basis of the levels and drainage design for the proposed development.
- 11.3 A review of the British Geological Survey (BGS) indicates that the site is underlain by River Terrace deposits (comprising undifferentiated clay, silt sand and gravel) and the Newhaven Chalk bedrock formation. A site investigation will be carried out with BRE365 compliant soakage testing to confirm the depths of the underlying strata and potential for infiltration.
- 11.4 A desktop based geo-environmental appraisal has been commissioned to provide a preliminary 'risk assessment' and 'conceptual site model' in order to assess any potential sources of contamination associated with previous uses of the site.

Hydrology (Surface)

- 11.5 The River Arun is located approximately 500m to the east of the site and runs through a series of villages before discharging into the English Channel at Littlehampton. Based on aerial images of the area, it is perceived that a number of drainage ditches are located around the site, which most likely lead to the River Arun. The location of on site ditches will be confirmed as part of the topographical survey, and a site inspection should be undertaken to identify the ditch network leading to the River Arun if possible.

Hydrogeology

- 11.6 The site is underlain by a Secondary A and Principal aquifer, designated to the superficial deposits and bedrock, respectively. The Secondary A aquifer means that the site has permeable layers capable of supporting water supplies at a local scale. The Principal Aquifer is where layers of rock have high intergranular and/ or fracture permeability, meaning they usually provide a high level of water storage. They may support water supply and/ or river

base flow on a strategic scale.

- 11.7 According to the EA's groundwater map, the site is not located within a Source Protection Zone.

Water Quality

- 11.8 Upstream of the site lies the Arun Valley, which consists of three SSSIs in an area of wet meadows on the floodplain of the River Arun. The Arun Valley is considered to be of national and international conservation importance, and subject to designation as a Special Protection Area (SPA), candidate Special Area of Conservation (cSAC) and Ramsar site. Water quality data for the river can be obtained (if available) and a review of the data can be undertaken to establish whether the EA requirements are being met.

Flood Risk and Surface Water Drainage

- 11.9 An initial review of the EA's indicative flood map indicates that the majority of the site is located in Flood Zone 1 (low probability). This land is assessed as having a less than 0.1% (1 in 1000) chance of river or sea flooding occurring each year. A small area to the north east of the site is located in Flood Zone 2. This land is assessed as having between a 1% (1 in 100) and 0.1% (1 in 1000) annual probability of river flooding, or between a 0.5% (1 in 200) and 0.1% (1 in 1000) annual probability of sea flooding. No development is currently proposed within this area of the floodplain.

Approach

- 11.10 An assessment will be undertaken of the likely significant effects of the proposed development on the water environment.
- 11.11 The ES chapter will identify and assess the effects of the proposed development on surface water quantity and quality, groundwater quantity and quality, and wastewater drainage as a result of the change in land use and regime during the construction and completed development phases.
- 11.12 The assessment of likely significant effects will be based on a review of published data including evidence base documents, site surveys and site visits, online mapping ((BGS), EA, Ordnance Survey, etc.), and liaison with the EA, Water Company and Lead Local Flood Authority (LLFA).

Summary

11.13 Table 10 summarises the likely effects on the water environment identified for inclusion in the assessment.

Table 10: Water Resources and Flood Risk

Receptor	Effects	Scoped In
Groundwater	Construction and operational phase effects on groundwater.	✓
Surface water	Construction and operational phase effects on surface water quantity and quality.	✓
Wastewater generation	Construction and operational phase effects on the wastewater conveyance and treatment network.	✓

12 CUMULATIVE EFFECTS AND CONSULTATION

- 12.1 The ES will consider the potential for likely significant effects on the environment resulting from committed developments in the area. PPG1 identifies that:

"...There are occasions where other existing or approved development may be relevant in determining whether significant effects are likely as a consequence of a proposed development..."

- 12.2 Table 11 sets out the committed schemes which have been identified for the assessment of likely significant cumulative effects on the environment. It is considered appropriate to include major schemes within 2km of the site that either have planning permission or are in the process of being implemented, as well as major planning applications which have been submitted but not yet determined.

Table 11: Cumulative Schemes

Scheme Name & Application Number	Scheme Details	Planning Status	Approximate Distance from the Site
Yapton			
Land North of Burndell Road, Yapton Ref: Y/81/10	Proposed development comprising of the construction of 173 new dwellings and associated car parking, public open space, including childrens play areas, vehicular access and highway works.	(At appeal – APP/C3810/A/11 /2155343/NWF)	Adjacent to the eastern boundary of the site.
Land to the south of Ford Lane East of North End Road, Yapton Ref: Y/80/16/OUT	Outline planning application with some matters reserved for 4.5 hectares of residential development comprising 3.4 hectares of land for up to 100 dwellings (up to 30 (30%) affordable housing) together with 1.1 hectares of land set aside for public open space and strategic landscaping and 2.2 hectares of public open space and green corridors with vehicular access from Ford Lane and pedestrian/cycle access only from North End Road. This application is a Departure from the Development Plan.	(At appeal – APP/C3810/V/16 /3158261)	Approximately 260m to the west of the site boundary.

Scheme Name & Application Number	Scheme Details	Planning Status	Approximate Distance from the Site
Land off Burndell Road, Yapton Ref: Y/19/16/OUT	Outline application for the development of a maximum of 108 No. residential dwellings, vehicular access from Burndell Road, public open space, ancillary works & associated infrastructure.	(At appeal – APP/C3810/V?16 /3158261)	Approximately 470m to the west of the site boundary.
Land at Bilsham Road, Yapton Ref: Y/91/17/OUT	Outline application for the development of up to 250 residential dwellings (Class C3), vehicular access, public open space, ancillary works and associated infrastructure.	Pending Decision	Approximately 1.1km west of the site boundary.
Land east of Drove Lane, Yapton Ref: Y/92/17/OUT	Outline application with all matters reserved save access, for up to 300 dwellings, link road, surface drainage, open space and landscaping.	Pending Decision	Approximately 1.4km east of the site boundary.
Ford			
Land to the South of Ford Lane, Ford Ref: F/4/18/PL	Salt storage building, office building, parking & turning area & open storage areas for highways maintenance depot.	Approved	Approximately 80m north of the site boundary.
Land south of Burndell Road, Yapton Ref: F/7/15/OUT	Outline application for residential development comprising 45 dwellings.	Approved	Approximately 450 west of the site boundary.
Climping			
Land to West of Church Lane, South of Horsemere Green Lane Ref: CM/1/17/OUT Resubmission Ref. CM/13/18/OUT	Outline application with some matters reserved for the erection of up to 300 dwellings and ancillary development comprising open space, a building within use class D1 of up to 875 square metres net, a building for A1 use having a floor area of up to 530 sq. metres net, together with open space and ancillary works, including access points, car parking and drainage arrangements, with appearance, landscaping, layout; and scale wholly reserved for subsequent approval. The access detail, showing the points of access to the development, and indicated on Bellamy Roberts drawings numbered	Appealed	Approximately 280m south of the site boundary.

Scheme Name & Application Number	Scheme Details	Planning Status	Approximate Distance from the Site
	4724/013 and 4724/005 Rev A are access proposals to be determined at this stage of the application.		

- 12.3 Guidance is sought from ADC as to whether any other committed developments should be considered for the potential to lead to likely significant cumulative effects on the environment with the proposed development.

Consultation

- 12.4 The following statutory and other consultees will be consulted through the EIA process:

- Highways England;
- Environment Agency;
- Natural England;
- Historic England;
- National Health Service;
- Southern Water;
- ADC (various departments);
- WSCC; and
- any other stakeholder that ADC nominates.

- 12.5 Public consultation will be undertaken during the preparation of the planning application. The feedback received through the consultation will be summarised in the ES and written up in full in the Statement of Community Involvement submitted in support of the planning application.

13 ENVIRONMENTAL STATEMENT STRUCTURE

13.1 The ES will contain three main volumes as set out in Table 12 below.

Table 12: Environmental Statement Structure

Volume 1: ES Main Text and Figures		
Chapter No.	Chapter Title	Description
1	Introduction	Introduction to the ES, EIA requirements, details of project team, ES organisation and availability.
2	EIA Methodology	Methods used to prepare each chapter, description of ES structure and content, generic significance criteria, scoping and consultation and details of schemes included in the assessment of cumulative effects
3	Site and Development Description	Site description and details of the proposed development.
4	Alternatives and Design Evolution	Outline of the main alternatives considered by the Applicant.
5	Construction Methodology and Phasing	Details of anticipated programme for development and construction methodology.
6	Population and Human Health	Consideration of the potential effects on population and human health.
7	Landscape and Visual Effects	Effects of the proposed development on landscape character and visual amenity. This will include the consideration of night time light effects.
8	Archaeology and Built Heritage	Consideration of the effects of the proposed development on above and below ground heritage assets.
9	Biodiversity	Assessment of effect on biodiversity and ecology at the site.
10	Transport & Access	Transport and access effects.
11	Air Quality	Assessment of the effects of the proposed development on air quality as a result of construction activities and vehicle movements.
12	Noise and Vibration	Assessment of the effects of the proposed development on noise and vibration.
13	Agricultural Land	Assessment of the loss of agricultural land and effects on agricultural land holdings.
14	Water Resources and Flood Risk	Assessment of the effects on water quality, including effects relating to drainage and flood risk.
15	Summary and Residual Effects	Summary of the residual and interactive effects of the proposed development.
Volume 2		
Technical Appendices		Technical data and reports to support the chapters in Volume 1.
Standalone Document		
Non-Technical Summary		Summary of the ES in non-technical language.

13.2 The first five chapters of the ES would be introductory and provide essential information for the subsequent technical chapters. Further information on these chapters is set out below.

Introduction

- 13.3 This chapter will provide background to the EIA, describe the structure of the ES and identify the project team.

EIA Methodology

- 13.4 This chapter will set out the methodology used in the EIA, state the assumptions applicable to all disciplines, summarise the EIA Scoping process undertaken and summarise the public consultation process. Bespoke methodologies, limitations and assumptions will be contained in the technical chapters of the ES where required.
- 13.5 The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the effects can be positive or negative. Generic criteria to be used in carrying out this process are detailed below. Some technical chapters will use discipline-specific criteria with their own terms for magnitude, sensitivity and significance. This will be explained in the relevant chapter.

Prediction of Impact Magnitude

- 13.6 The methodology for determining the scale or magnitude of impact is set out below.

Table 13: Methodology for Assessing Magnitude

Magnitude of Impact	Criteria for assessing impact
Major	Total loss or major/substantial alteration to key elements/features of the baseline (pre-development) conditions such that the post development character/composition/attributes will be fundamentally changed.
Moderate	Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition/attributes of the baseline will be materially changed.
Minor	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character/composition/attributes of the baseline condition will be similar to the pre-development circumstances/situation.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

- 13.7 The sensitivity of a receptor is based on the relative importance of the receptor using the scale set out below.

Table 14: Methodology for Determining Sensitivity

Sensitivity	Examples of Receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Moderate	The receptor/resource has moderate capacity to absorb change without significantly altering its present character, or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

Assessment of Effect Significance

- 13.8 Effect significance will be calculated using the matrix in Table 15. This illustrates the interaction between impact magnitude and receptor sensitivity.

Table 15: Effect Significance Matrix

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major Adverse/Beneficial	Major - Moderate Adverse/Beneficial	Moderate - Minor Adverse/Beneficial
Moderate	Major - Moderate Adverse/Beneficial	Moderate - Minor Adverse/Beneficial	Minor Adverse/Beneficial
Minor	Moderate - Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor Adverse/Beneficial - Negligible
Negligible	Negligible	Negligible	Negligible

Site and Development Description

- 13.9 This chapter will describe the setting of the site and the existing conditions on the site, as well as explaining the proposed development and setting out the development parameters. The parameter plans will be included as figures to the chapter.

Alternatives

- 13.10 This chapter would describe the evolution of the proposed development based on environmental constraints.

Construction Methodology and Phasing

- 13.11 This chapter will outline the anticipated construction programme, phasing and methodology and explain the assumptions made. This chapter will form the basis of the construction phase assumptions documented in each of the technical chapters of the ES.

Technical Assessments

13.12 Each ES chapter will follow the headings set out below to ensure the final document is transparent, consistent and accessible.

- Introduction;
- Planning Policy Context;
- Assessment Methodology;
- Baseline Conditions;
- Likely Significant Effects;
- Mitigation Measures;
- Residual Effects;
- Cumulative Effects; and
- Summary.

13.13 Each chapter sub-heading is explained in further detail below.

Table 16: Technical Chapter Format and Content

Sub-Heading	Content
Introduction	This section will introduce the assessment discipline and the purpose for which it is being undertaken.
Planning Policy Context	This section will include a summary of national, regional and local policies of relevance to the environmental discipline and assessment. Where applicable, relevant legislation will also be summarised.
Assessment Methodology	- This section will provide an explanation of methods used in undertaking the technical study with reference to published standards, guidelines and best practice. The application of significance criteria will also be discussed. - It will also outline any difficulties encountered in compiling the required information.
Baseline Conditions	This will include a description of the environment as it is currently (2017) and as it is expected to change given the project were not to proceed (i.e. 'do-nothing' scenario). The method used to obtain baseline information will be clearly identified. Baseline data will be collected in such a way that the importance of the particular subject area to be affected can be placed in its context and surroundings so that the effects of the proposed changes can be predicted.
Likely Significant Effects	This section will identify the likely significant effects on the environment resulting from the construction and operational phases of development.
Mitigation Measures	- Adverse effects will be considered for mitigation and specific mitigation measures put forward, where practicable. Mitigation measures considered may include modification of the project, compensation and the provision of alternative solutions (including alternative technology) as well as pollution control, where appropriate. - The extent of the mitigation measures and how these will be effective will be discussed. Where the effectiveness is uncertain or depends upon assumptions about operating procedures, data will be introduced to justify the acceptance of these assumptions. - Clear details of when and how the mitigation measures will be carried out will be given. When certainty of impact magnitude and/or effectiveness of mitigation over time exists, monitoring programmes will be proposed to enable subsequent adjustment of mitigation measures, as necessary.

Sub-Heading	Content
	- The opportunity for enhancement measures will also be considered, where appropriate. - Information will be included on the mechanism by which the mitigation will be secured (e.g. by planning condition) with outline arrangements for monitoring and responsibilities for doing so, where necessary.
Residual Effects	The residual effects, i.e. the effects of the proposed development assuming implementation of proposed mitigation, will be determined. The residual effects represent the overall likely significant effect of the proposed development on the environment having taken account of practicable/available mitigation measures.
Cumulative Effects	The cumulative effects of the proposed development and the identified committed developments will be assessed.
Summary	A summary of the assessment and conclusions will be provided at the end of each technical chapter.

Summary and Residual Effects

- 13.14 The residual effects of the proposed development will be summarised in one table at the end of the ES setting out the overall beneficial and adverse effects of the proposed development. This chapter will also identify any interactive effects that could result from the proposed development. i.e. multiple effects impacting on a single receptor.