3 EIA Methodology

3.1 Introduction

3.1.1 The EIA Regulations require that an EIA be undertaken for the Proposed Development and that an ES identifying impacts and associated mitigation measures must be provided to accompany the planning application.

3.1.2 For the purposes of the EIA Regulations, Regulation 18 (3) defines an environmental statement as:

"...a statement which includes at least:

(a) a description of the proposed development comprising information on the site, design, size and other relevant features of the development;

(b) a description of the likely significant effects of the proposed development on the environment;

(c) a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;

(d) a description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment;

(e) a non-technical summary of the information referred to in sub-paragraphs (a) to (d); and

(f) any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected."

3.1.3 Temple has been commissioned by the Applicant to prepare the EIA in line with the EIA Regulations and the other relevant EIA guidance and to produce this ES which is submitted with the planning application.

3.1.4 The Applicant and consultant team has provided the necessary information to enable preparation of this ES. The ES will ensure that sufficient information is provided to enable Tandridge District Council (TDC) to make a decision about the planning application with due regard to, and in the knowledge of, any likely significant environmental effects.

3.1.5 This chapter sets out the methodology used to prepare each chapter of the ES and describes the general structure and content of the technical chapters. In

particular, it sets out the process of identifying and assessing the likely significant effects of the Proposed Development on the environment.

3.1.6 Further detail on how the assessment methodology is applied to each technical topic scoped into this ES is presented within the respective technical chapter or volume of this ES.

3.1.7 The ES has been prepared to comply with the EIA Regulations[1] which implement European Council Directive 2014/52/EU. The ES has also drawn on current good practice guidance in EIA, including (but not limited to) the following:

- National Planning Policy Framework (NPPF)[2] and associated Planning Practice Guidance[3];
- The Institute of Environmental Management and Assessment's (IEMA's) 'Guidelines for Environmental Impact Assessment'[4];
- Environmental Impact Assessment: A Guide to Good Practice and Procedures (consultation paper)[5];
- IEMA's 'Special Report into the State Environmental Assessment Practice in the UK'[6];
- IEMA's 'Shaping Quality Development'[7];
- IEMA's 'Delivering Proportionate EIA'[8];
- IEMA's 'Major Accidents and Disasters in EIA'[9];
- IEMA's 'Effective Scoping of Human Health in Environmental Impact Assessment'[10];

[1] The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/571).

[2] MHCLG, (Dec 2024); National Planning Policy Framework.

[3] MHCLG, (2021); planning Practice Guidance.

[4] IEMA, (2004); Guidelines for Environmental Impact Assessment.

[5] Department for Communities and Local Government (DCLG), (2006); Environmental Impact Assessment: A Gide to Good Practice and Procedures (consultation paper).

[6] IEMA, (2011); Special Report into the State Environmental Impact Assessment Practice in the UK.

[7] IEMA, (2015); Shaping Quality Development.

[8] IEMA, (2017); Delivering Proportionate EIA.

[9] IEMA, (2020); Major Accidents and Disasters in EIA.

[10] IEMA, (2022): Effective Scoping of Human Health in Environmental Impact Assessment.

- IEMA's 'Assessing Greenhouse Gas Emissions and Evaluating their Significance'[11]; and
- IEMA's 'Implementing the Mitigation Hierarchy from Concept to Construction'[12].

3.2 EIA Scoping and Consultation

3.2.1 Potential environmental topics in relation to the Proposed Development were evaluated, having regard to the EIA Regulations, policy, best practice and relevant guidance, as part of the scoping exercise. The scope of the EIA was then determined using professional judgement and experience. This has been carried out to confirm which topics should be included in the EIA, having regard to whether they are likely to give rise to significant effects.

3.2.2 Since the submission of the Scoping Request, the proposals have undergone some minor amendments whereby the scheme now includes *up to 190 dwellings and an 80-bed care home*, rather than *up to 140 dwellings and an 80-bed care home* as previously stated. The Site area, the proposed uses and the general scale and location of development remains unchanged. The potential uplift in residential homes does not alter the scheme in a way that would lead to a difference in the proposed approach, scope of the assessments or potential effects generated. As such the proposed methodologies within each specialist topic remain unchanged and the advice given in the Scoping Opinion remains valid.

3.3 The Environmental Statement Approach

Topics Scoped into the ES

3.3.1 The topics listed in **Table 3.1** below have been considered likely to have the potential to generate significant effects as a result of the Proposed Development; therefore, they have been scoped into the ES.

3.3.2 A Scoping Report (**ES Volume 3, Appendix A1**) was submitted to TDC on 22nd August 2024 with a formal request for an EIA Scoping Opinion in accordance with Regulation 15 of the EIA Regulations under the planning reference 2024/956/EIA. A Scoping Opinion was issued on the 15th October 2024 and a copy is provided in **ES Volume 3, Appendix A2**.

[11] IEMA, (2022); Assessing Greenhouse Gas Emissions and Evaluating their Significance.

[12] IEMA (2024); Implementing the Mitigation Hierarchy from Concept to Construction

3.3.3 **Section 3.4** of this chapter outlines the proposed approach to these topic assessments.

Table 3.1: Topics Scoped into the EIA

Scoped In Topic Chapters
Socio-Economics (Chapter 6)
Air Quality (Chapter 7)
Noise and Vibration (Chapter 8)
Traffic and Transport (Chapter 9)
Ecology (Chapter 10)
Built Heritage (Chapter 11)
Landscape and Visual Impact Assessment (Chapter 12)

3.3.4 The following topic chapters were scoped out of the ES as standalone chapters in agreement with TDC, in line with the reasoning outlined in the EIA Scoping Report, with further explanation provided below:

- Archaeology;
- Agriculture and Soils;
- Climate Change Mitigation and Adaptation;
- Ground Conditions and Contamination;
- Human Health;
- Materials and Waste;
- Major Accidents and / or Natural Disasters; and,
- Water Resources.

3.3.5 A summary of the key points raised in the Scoping Opinion (TDC, October 2024) in terms of the overarching approach to the EIA, methodology and criteria for assessment are presented in **Table 3.2**, including a response as to where the comments have been addressed within the ES or documents supporting the application. Where the Scoping Report Review refers to specific technical topics, these have been covered within each respective ES chapter.

Table 3.2: Location of information within the ES

Topic / Section	Summary of Comment	Location within the ES or supporting documents where comments are addressed
TDC Scoping Opinion (October 2024)		
Socio-Economics	• It is agreed that Socio-Economics should be scoped in.	Chapter 6: Socio-economics

Topic / Section	Summary of Comment	Location within the ES or supporting documents where comments are addressed
Air Quality	• It is agreed that Air Quality should be scoped in. • The Council's Environmental Health Officer has confirmed that they are satisfied with the contents of the Scoping Report.	Chapter 7: Air Quality
Noise and Vibration	• It is agreed that Noise and Vibration should be scoped in. • The Council's Environmental Health Officer has confirmed that they are satisfied with the contents of the Scoping Report.	Chapter 8: Noise and Vibration
Traffic and Transport	• The County Highway Authority (CHA) are satisfied that the transport methodology is broadly suitable. • The proposals are the subject of an ongoing pre-application advice process with the CHA and are therefore subject to change which could then impact on the necessary scope or methodology of the EIA. • The baseline data used for the ES should reflect the baseline data collected to support the Transport Assessment. • It is agreed that Traffic and Transport should be scoped in.	Chapter 9: Traffic and Transport Pell Frischmann have been in regular consultation with the CHA to agree details of the scope and methodology of the assessment. We can confirm that the data within the ES chapter reflects that collected and presented within the Transport Assessment.
Ecology	• The assessment should fully acknowledge the presence of the Ancient and Semi Natural Woodland known as 'The Bogs' which immediately abuts the proposal site to the south. The Ancient Woodland is also listed as priority habitat deciduous woodland, which extends further into the site, north of the ancient woodland boundary. • The assessment should ensure that no loss or deterioration is caused to 'The Bogs' by providing a sufficient semi natural buffer (which ideally should exceed the minimum 15m semi natural buffer as recommended by Natural England) and should take account of any veteran trees that are surveyed within the woodland (where the	Chapter 10: Ecology Assessment of 'The Bogs' is contained within **Section 10.7** of the Ecology ES chapter. A 15m buffer has been established from the Site to the Ancient Woodland with all development outside of this buffer.

Topic / Section	Summary of Comment	Location within the ES or supporting documents where comments are addressed
	buffer should be at least 15 x the stem diameter of the tree). • The site is bounded by hedgerows, which will need to be assessed for their 'importance' in terms of the Hedgerow Regulations 1997. The level of importance, in all respects, would need to be assessed when considering access points etc, which may require sections of hedgerow to be removed. • Considering the arboricultural constraints, the applicant will need to ensure that the layout takes full account of the ancient woodland, trees and hedgerows, which form an integral aspect of the landscape character. Any new roads should be designed to be 'tree lined' in accordance with the NPPF, and open spaces and verges should ensure that space is provided for significant amenity tree planting. A diverse mixture of native, naturalized and non-native trees should be provided within a comprehensive landscaping strategy. The applicant should also submit a detailed Arboricultural Impact Assessment and outline Arboricultural Method Statement and Tree Protection Plan. • It is agreed that Ecology should be scoped in.	Assessment of the hedgerows for their importance is contained within **Section 10.7** of the Ecology ES chapter. Chapter 5: The Proposed Development and Construction Overview Demonstration of tree planting contained within **Section 5.2** of Chapter 5. Arboriculture Impact Assessment and Method Statement **Volume 3, Appendix B3**
Heritage	• The assessment should take account of views from Court Farm House (Grade II) which is to the south of the Church of St Mary. While it is unlikely the impact on this building will be considered 'significant' in line with the matrix set out within the Scoping Report, this will nonetheless need to be taken into consideration as part of the overall assessment of the impact on the historic built environment. • In line with Historic England Good Practice Advice Note 3, the assessment should include both summer and winter views. The inclusion of winter views are most important to show the full impact of the scheme when the trees are not in leaf.	Chapter 11: Heritage Chapter 12: Landscape and Visual Impact Heritage Statement **Volume 3, Appendix G1** RPS has liaised with Historic England and Surrey Conservation Officer to agree details of the scope

Topic / Section	Summary of Comment	Location within the ES or supporting documents where comments are addressed
	Subject to the proposed layout of the site, a further viewpoint ought to be included between viewpoints 1 and 2/3 looking south-east toward the Church of St Mary where the church should be more prominent. • To minimise harm, proposed dwellings should reflect the Surrey vernacular style, in particular through the use of materials such as clay tiles and bricks. Consideration should also be given to the location of open spaces to see whether a suitable buffer can be created between the development and St Mary's Church. It would also be preferable to have the view toward the church along the existing Right of Way kept open. • It is agreed that Built Heritage should be scoped in.	and methodology of the assessment. Chapter 5: The Proposed Development and Construction Overview Demonstration of the design code is contained within **Section 5.2** of Chapter 5.
Landscape and Visual Impact Assessment	• It is likely that when the planning application undergoes determination, the AONB (hereafter National Landscape) boundary review will be further progressed and should be given greater weight. • The landscape issues will need to cover not just views from the proposed National Landscape to the proposed development but whether the development would harm views across the site into the proposed National Landscape. It is strongly recommended that substantial tree belts should be planted along the common boundary of the development site with the proposed National Landscape. • The nearest existing National Landscape boundary is to the north and the proposals should comply with NPPF paragraph 189* states which that: "...development within their (National Landscape and NPS) setting should be sensitively located and designed to avoid	Chapter 12: Landscape and Visual Impact Volume 3, Appendix H

Topic / Section	Summary of Comment	Location within the ES or supporting documents where comments are addressed
	or minimise adverse impacts on the designated areas." • The intervening area between the AONB to the north and proposed development site is developed. Consequently, the visual impact of the proposed development may be shown in the application not to be significant. It will be views towards the AONB that will need to be covered in a Landscape Visual Impact Assessment accompanying the application. • It is agreed that Landscape and Visual Impact should be scoped in. **Reference has been updated to reflect the latest NPPF version (December 2024).*	

Topics to be Scoped Out of the ES

3.3.6 The following sections outline the reasoning and justification for scoping certain topics out of the ES, which was agreed in the formal Scoping Opinion with TDC.

Archaeology

3.3.7 An archaeological desk-based assessment (ADBA) was carried out in September 2024 (**Volume 3, Appendix B1**). The archaeological baseline has been provided within the site context information of **ES Vol 2, Chapter 2: The Site**.

3.3.8 It is anticipated that the proposed development works are unlikely to have a substantial negative impact or cause significant harm on any underlying archaeological assets that may be present at the site, as survival is expected to be localised and mainly associated with Medieval and Post Medieval evidence of agricultural activity and land management. If encountered, these would be likely be considered of low (Local) significance.

3.3.9 It has been agreed with the County Archaeologist that any required archaeology works will follow post-determination and will be secured by condition.

3.3.10 Consequently, in agreement with TDC archaeology is not considered further within the EIA or reported on in this ES.

Agriculture and Soils

3.3.11 The agricultural baseline has been provided within the site context information of **ES Vol 2, Chapter 2: The Site**.

3.3.12 No Grade 1 or 2 agricultural soils are predicted to be present on Site or within close proximity. Therefore, the only potential for BMV land is where they may be classified as Grade 3a.

3.3.13 Given the limited size (below 10ha) and current urban ALC classification which reflects the immediate surrounding uses in the wider village of Oxted, it is considered that the land is of limited benefit for agricultural purposes. As such, a detailed Agricultural Land Classification Survey has not been undertaken for the Site. There are no sensitive agricultural receptors likely to be affected by the Proposed Development.

3.3.14 A Soil Management Plan will be produced as part of the wider Construction Environmental Management Plan (CEMP) to ensure enhancements and mitigation wherever feasible for the Site and Proposed Development.

3.3.15 Consequently, in agreement with TDC agriculture is not considered further within the EIA or reported on in this ES.

Climate Change Mitigation and Adaptation

3.3.16 A changing climate has the potential to fundamentally affect the world around us and the way we live. The Climate Change Act 2008 (as amended 2019)[13] sets up a framework for the UK to reduce its greenhouse gas (GHG) emissions by 100% from 1990 levels by 2050. Furthermore, it promotes the creation of a program focused on adapting to climate change.

3.3.17 The baseline greenhouse gas (GHG) emissions that would be emitted or sequestered in the existing Site are considered to be zero as there are no material operations on-Site currently, the baseline is considered to be zero emissions, meaning that any net change in emissions would be against this.

3.3.18 The Proposed Development will result in greenhouse gas emissions (mostly carbon dioxide) through embodied carbon within building materials, construction and operational traffic and operational energy use. Under IEMA guidance 'Assessing Greenhouse Gas Emissions and Evaluating Their Significance' (2022)[14] this describes how a proportionate assessment of a development's potential impact on climate can be achieved and how to

[13] HMSO (2008): Climate Change Act 2008 (2050 Target Amendment) Order 2019.

[14] IEMA (2022) Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance

communicate the results in terms of a notional percentage contribution relative to a carbon budget, accounting for achievable mitigation. Key updates from the 2017 guidance include:

- Mitigation should be considered from the outset and throughout the project's lifetime;
- Relative significance descriptions to assist assessments; and
- Five distinct levels of significance which are not solely based on whether a project emits GHG emissions alone, but how the project makes a relative contribution towards achieving a science-based 1.5°C aligned transition towards net zero.

3.3.19 It is considered that measures to mitigate emissions will be incorporated, particularly through avoidance and reduction.

3.3.20 Emissions arising from construction activities and transport will be mitigated in line with Best Practice measures including a CEMP and Waste Management Plan. Embodied carbon within construction materials (particularly steel and concrete) will lead to some notable emissions, but consideration will be given to optimising the design so as to reduce overall quantities of materials and use more sustainable materials and materials with a higher recycled content. Over the lifespan of the Proposed Development (60 years +), further small amounts of embodied carbon will arise from maintenance activities. Though, due to the size of the Proposed Development and the implementation of the CEMP, the emissions are not considered to give rise to significant effects.

3.3.21 Emissions from operational energy are considered to be the largest proportion over the lifespan of the Proposed Development. An Energy Statement has been submitted as part of the planning application to demonstrate how energy efficiency, cleaner energy generation and renewable energy measures will reduce energy usage below the requirements of the Building Regulations.

3.3.22 Furthermore, vegetation and trees at the Site will help to absorb carbon. Overall, the effects of GHG emissions in the UK and local context would be very small and therefore highly unlikely to trigger the need for EIA.

3.3.23 In terms of the effects of climate change on the Proposed Development, this is predicted to manifest itself in two main ways: changing surface air temperatures and flood risk/water availability. The risk and effects of flooding upon the Proposed Development has been discussed below and have been scoped out of the assessment.

3.3.24 In terms of changing surface air temperatures, these are generally predicted to increase in summers and winters are expected to become milder. In order to

meet the energy efficiency requirements described above, the Proposed Development will have high levels thermal efficiency (e.g. insulation) built in.

3.3.25 The Energy Statement mentioned above lays out measures for the Proposed Development to minimise carbon emissions as far as viably and technically practicable. Given the scale of the Proposed Development, carbon emissions are not likely to give rise to significant effects during either construction or operation.

3.3.26 The Proposed Development will be designed to avoid overheating, and the outdoor spaces will have shade and shelter provided, alongside carbon sequestration benefits. Taking these matters into consideration there are not likely to be significant effects on climate change from the Proposed Development.

3.3.27 Consequently, in agreement with TDC climate change is not considered further within the EIA or reported on in this ES.

Ground Conditions and Contamination

3.3.28 A Phase 1 Land Quality Desk Study has been undertaken, including a Site walkover (**Volume 3, Appendix B2**). The ground conditions baseline has been provided within the site context information of **ES Vol 2, Chapter 2: The Site**.

3.3.29 Due to the low risk on Site no site investigation is proposed. Adherence to relevant legislative and best practice construction mitigation measures and pollution controls will be undertaken to ensure the construction works do not give rise to any significant contamination risks (and therefore effects) to human health and the environment.

3.3.30 To this end, a Construction Environmental Management Plan (CEMP) will be devised and implemented during the construction phase of the Proposed Development. The CEMP would outline management procedures for pollution prevention, hazardous materials storage, requirements for risk assessments and method statements, use of materials on-Site and the disposal of materials from the Site. The CEMP would outline health and safety requirements for workers who may encounter contaminants.

3.3.31 Based on the effectiveness of the above, it is not anticipated that the Proposed Development would give rise to significant effects with respect to ground conditions and contamination.

3.3.32 In view of the above, it is considered unlikely that there will be any significant effects in relation to ground conditions and contamination, as a result of the Proposed Development. Therefore, in agreement with TDC ground conditions is not considered further within the EIA or reported on in this ES.

Human Health

3.3.33 Health is influenced by many factors (i.e. determinants of health), including (but not limited to) physical activity; diet and nutrition; housing; open space; leisure and play space; transport modes, access and connections; social participation, interaction and support; education and training; employment and income, climate change and adaptation; air quality; noise and vibration; land quality; and health and social care services.

3.3.34 Those who will experience changes in health as a result of the Proposed Development (i.e. sensitive receptors) include vulnerable groups of the general population (i.e. older people, people with disabilities, communities experiencing deprivation). The general population will cover future residents, future users of the Site, demolition and construction workers and operational or maintenance workers.

3.3.35 Whilst IEMA's Guide to Determining Significance for Human Health in Environmental Impact Assessment[15] highlights that there could be a range of sensitivities within sub-populations, with some who are more vulnerable and less able to deal with changes (for example, being more sensitive than others), it was considered that the population and sub-populations anticipated to be affected by the Proposed Development are unlikely to have an increased sensitivity to health impacts. Consequently, a low sensitivity of receptor was assumed.

3.3.36 Further to the above, it is considered that the Proposed Development will have a low magnitude of impact on elements such as (but not limited to) risk taking behaviour, air quality, water quality or availability and land quality, as the implementation of a CEMP would reduce risk taking behaviour and potential adverse effects on air quality, water quality and land quality during the construction of the Proposed Development.

3.3.37 However, it was considered that the Proposed Development will also have a medium magnitude of impact on elements such as (but not limited to) physical activity levels, housing need, provision of facilities for older people (care home), play space, transport modes and connections and community safety, as the Proposed Development will promote physical activity through the provision of open/play space and encouragement to use sustainable modes of transport, provide a dwelling mix relative to the community need and provide affordable housing and be designed to minimise actual fear and crime.

[15] IEMA. (2022) IEMA Guide: Determining Significance for Human Health in Environmental Impact Assessment.

3.3.38 Given the above, in line with the generic indicative EIA significance matrix presented in IEMA's Guide to Determining Significance for Human Health in Environmental Impact Assessment[16], it was considered that the Proposed Development would not result in any likely significant effects. Although beneficial effects would likely be realised as a result of the Proposed Development, these would be considered to be minor and not significant. Therefore, in agreement with TDC, human health, other than in relevant technical chapters (i.e. Socio-economics, Air Quality and Noise and Vibration), is not considered further within the EIA or reported on in this ES.

Materials and Waste

3.3.39 The Proposed Development will require construction work, which is anticipated to produce waste. Other materials and any contaminated material will be disposed to appropriate landfill facilities. Such waste will be handled, processed and removed from Site by suitably qualified contractors, all being undertaken in line with The Hazardous Waste (England and Wales) Regulations 2005 and The Waste (England and Wales) Regulations 2011. Overall, it is anticipated that there will be a surplus of material for disposal off-site, which will be managed in accordance with the Waste Hierarchy.

3.3.40 All waste arisings during construction are to be controlled through the implementation of a CEMP and a best practice Site Waste Management Plan (SWMP). The CEMP will be informed by the waste provisions of the Environmental Protection Act 1990 and will set out the principles and legal requirements relating to waste (including hazardous waste). The SWMP will describe how materials will be managed and stored efficiently and disposed of legally during the construction phase. It will also outline the aims, objectives and on-going management responsibilities, including management and storage practices, to be implemented during the construction phase, and will set targets for the reduction, diversion from landfill and reuse of waste.

3.3.41 Operational waste will be generated by residential uses. The Proposed Development will include provisions for waste storage facilities, which will include facilities for the separation of waste for recycling purposes. An Operational Waste Management Strategy (OWMS) will be developed for the Site

[16] Ibid.

which will set out the principles, strategy and targets for the management of waste and maximise recycling, in accordance with TDC established policy.

3.3.42 Operational wase from residents will be managed by Surrey County Council. Residents in TDC achieve a 59.9% reuse, recycling and composting rate, higher than the county and national averages.

3.3.43 With regards to materials, there is not anticipated to be any significant issues in terms of availability of materials required for the Proposed Development. The Proposed Development will comprise a high number of sustainable features and construction methods. The Proposed Development is likely to be free from any known issue regarding materials stock and will be built with industry-standard materials. Subsequently, there are not anticipated to be any significant effects on materials from the Proposed Development.

3.3.44 Through the use of a SWMP, OWMP, CEMP and best practice, it is not expected that the Proposed Development will hold the potential for significant adverse environmental effects to occur. In terms of landfill capacity, effects are only considered significant where waste generated by the development would reduce regional landfill void capacity by over 5%. Given the scale of the development, neither the construction or operational phases are expected to create this level of waste. This scoping guidance is in line with the IEMA guide to Materials and Waste in Environmental Impact Assessment (2020[17]).

3.3.45 Consequently, in agreement with TDC materials and waste is not considered further within the EIA or reported on in this ES.

Major Accidents and Natural Disasters

3.3.46 The major accidents and natural disasters baseline has been provided within the site context information of **ES Vol 2, Chapter 2: The Site**.

3.3.47 Under Schedule 3 of the EIA Regulations, the risks of major accidents and natural disasters relevant to the Proposed Development need to be considered.

3.3.48 As a residential development, the Proposed Development would not be a source of hazard that could result in a major accident or disaster during operation. Measures to eliminate the risk of major accidents of disasters as a result of the construction of the Proposed Development will be outlined in a CEMP.

[17] IEMA (2020) Materials and Waste in Enviromnental Impact Assessment, Guidance for a Proportionate Approach

3.3.49 A review has been undertaken of potential sources of hazard in the surrounding area, that have the potential to interact with the Proposed Development.

3.3.50 As described above the risks from **Ground Conditions and Contamination** are unlikely to be considered significant and, as described in the **Water Resources and Flood Risk** section below, adverse changes to water resources and surface water flooding are also unlikely to be significant.

3.3.51 It is considered that existing design measures and standard practice will adequately control any potential major accidents and / or disasters; therefore in agreement with TDC, this is not considered further within the EIA or reported on in this ES.

Water Resources and Flood Risk

3.3.52 The water resources and flood risk baseline has been provided within the site context information of **ES Vol 2, Chapter 2: The Site.**

3.3.53 The BGS online 1:50,000 GeoIndex mapping identifies that the underlying solid geology is Folkestone Formation - Sandstone.

3.3.54 Defra's Magic Map website lists the soil as being 'freely draining slightly acid loamy soils', however it is noted that the default HR Wallingford Greenfield Runoff Tool runoff rates are based on a heavy clay Standard Percentage Runoff (SPR) of 0.47.

3.3.55 The Southern Water capacity check response states that there 'is currently inadequate capacity within the foul sewerage network' and upgrades would need to be made to support development.

3.3.56 The CIRIA SuDS Manual provides guidance on the treatment of surface water runoff. Current planning policy and EA guidance will require the proposed development to employ Sustainable Drainage Systems (SuDS). Therefore, careful design of SuDS features that closely reflects the natural hydrology have been managed through statutory consultation as part of the planning application.

3.3.57 Surface water modelling has been undertaken to inform the planning application and the drainage strategy. This is particularly important to understand the implications of both the interception and routing of surface water by drainage infrastructure along Barrow Green Road, as well as the large diameter surface water gravity sewer flowing down Chalkpit Lane – both of these connect to the ordinary watercourse on the eastern boundary of the Site. During the site visit undertaken on the 9th May 2024, it was noted that there is a spring onsite. As such, further work has been undertaken to establish the exact location of the spring and how the water flows in relation to it. The detailed

technical work show that the Proposed Development will not impact on this spring, and it can continue to function post development. The Drainage Strategy has been submitted as part of the planning application.

3.3.58 Southern Water has a duty to provide network capacity from the point of practical connection (point of equivalent or larger diameter pipe) funded by the New Infrastructure Charge. The nearest point where waste water treatment capacity is currently available is at Oxted WTW which is located approximately 2.9 km towards southeast of the proposed development site.

3.3.59 Fluvial flooding will not be a constraint on the Site as the Site is shown to be located outside of Flood Zones 2 and 3. A flood risk assessment has been submitted as part of the planning application.

3.3.60 Prior to construction a Construction Surface Water Management Plan will be prepared to ensure surface water run-off and discharge from the construction site will also be appropriately managed. This should be secured by planning condition.

3.3.61 With the above considerations designed into the scheme, there is not anticipated to be any significant effect on flood risk, surface water or groundwater quality, or potable or wastewater treatment capacity, and as such, in agreement with TDC water resources has not been considered further within the ES.

Public Consultation

3.3.62 Engagement with non-statutory consultees is an on-going process as part of the design development. The process of consultation and engagement is also critical to the preparation of a comprehensive and balanced scheme, to help focus the environmental studies and to identify specific issues that require further investigation, and to understand the views of the local community. Information and views have been sought through public consultation.

3.3.63 Consultation and engagement events / activities included:

- Public consultation held in the form of an online website, which was available for comment between 5th July 2023 and 19th July 2023 and then reopened for comment from 3rd July 2024 to 28th July 2024 - the website remains live;
- Further lines of communication (including a freephone telephone information line and email address), which were available throughout the consultation period; and
- An in-person community drop-in event, held on 15th July 2024 at Oxted Community Hall, 53 Church Lane, Oxted, Surrey, RH8 9NB.

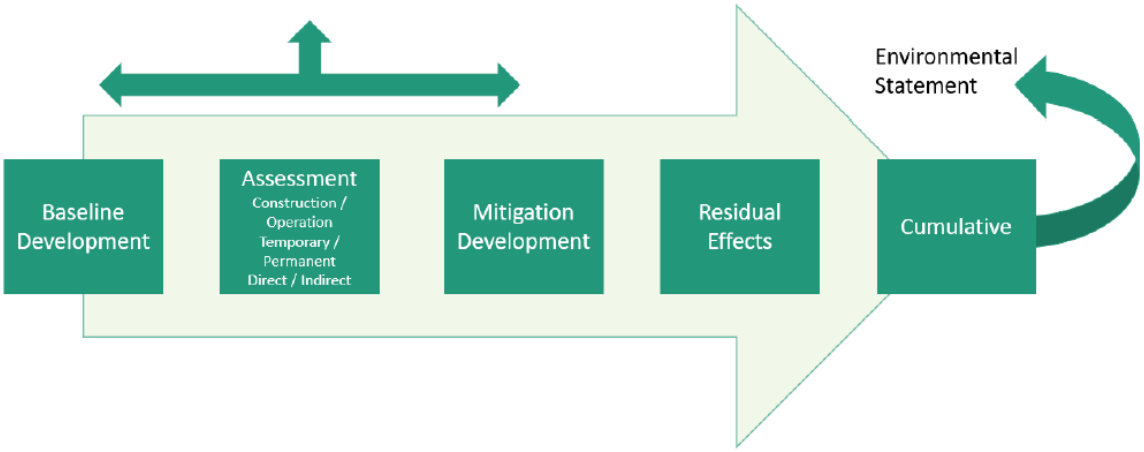
3.3.64 Further details of the public consultation activities are provided within the Statement of Community Involvement, submitted as part of the planning application.

3.4 The Environmental Statement Approach

Approach to Technical Studies

3.4.1 The approach taken to the EIA process is shown in **Figure 3.1**. The general approach to the assessment establishes the baseline for each topic. Receptors and resources are identified, and their sensitivity classified. The potential impacts of the Proposed Development on these receptors and resources are assessed for the construction and operational phases of the Proposed Development where relevant, taking into account any embedded mitigation. Subsequently, additional mitigation measures are considered, as appropriate, allowing the likely significant residual and cumulative effects to be identified.

Figure 3.1: EIA Assessment Process



3.4.2 In order to inform the design process, the EIA studies commenced at an early stage in the development and design process of the Proposed Development in 2024. The studies have been undertaken in accordance with current best practice. Specific guidance used is referenced within each of the respective technical chapters.

3.4.3 The assessments involved consultation with statutory and non-statutory bodies desk-based research, Site inspections and surveys, impact and effect prediction and identification of mitigation measures.

3.4.4 The assessment and conclusions of the ES are based on the Proposed Development as described in **ES Vol 2, Chapter 5: The Proposed Development and Construction Overview.**

Baseline Development

3.4.5 The ES primarily describes environmental impacts in terms of the extent of likely change to the baseline environment. The baseline represents the environmental conditions of the Site at the time of the assessment.

3.4.6 For most of the technical ES chapters, this means the baseline has been taken as the existing conditions (2023-2024 – when the majority of the baseline surveys were undertaken) at the Site. However, in some circumstances it may be necessary to apply a 'future baseline' or a more historic one when based on population survey data. Where this has been undertaken, this has been explained and justified within the relevant technical ES chapters.

3.5 Structure of Technical Chapters

3.5.1 Each technical chapter of the ES (**Volume 2, Chapters 6 to 12**) has been set out broadly in line with the structure outlined in **Table 3.3**.

Table 3.3: Structure of the Technical Chapters

Technical Chapter Structure	
Scope of Assessment	Each of the technical chapters begins with an introduction to the assessment, explaining its purpose in the context of the Proposed Development and ES, including any key topics / aspects which have been scoped in or out of the assessment.
Key Legislation, Policy and Guidance	This section includes a summary of national, regional and local policies of relevance to the environmental discipline and assessment. Where applicable, relevant legislation has also been summarised.
Assessment Methodology	This section provides an explanation of methods used in undertaking the study with reference to published standards, guidelines and best practice. Limitations or difficulties encountered are discussed, if any. It also discusses the application of sensitivity, magnitude and significance criteria within the assessments.
Baseline Assessment and Identification of Key Receptors	This section describes and evaluates the baseline environmental conditions i.e. the current situation and anticipated changes over time in the absence of the Proposed Development. This is a critical part of the EIA process as it provides a measure against which the likely significant effects on the environment can be assessed.
Identification and Description of Changes Likely to Generate Effects	This section provides a brief description of the changes likely to generate effects during both the construction of the Proposed Development and the operation of the Proposed Development.

Technical Chapter Structure	
Assessment of Likely Significant Effects	This section identifies the likely significant effects on the environment resulting from the Proposed Development during construction and operational phases taking into account the embedded mitigation outlined in the CEMP and within each of the topic chapters 6 to 12. A description of the likely effects of the Proposed Development and an assessment of their predicted significance are also provided.
Scope for Additionally Mitigation Measures	One of the main aims of the EIA process is to develop suitable mitigation measures to avoid, reduce or compensate for all significant adverse effects of a project. These measures relate to all phases. This section describes the additional measures which would be implemented to mitigate against potentially significant adverse effects. Where possible, enhancement measures have been proposed.
Residual Effects	The residual effects, i.e. the remaining effects of the Proposed Development assuming implementation of the proposed embedded and additional mitigation measures, have been estimated and presented.
Cumulative Effects	This section summarises the cumulative effects of the Proposed Development in combination with identified schemes.
Summary and Conclusions	Each technical chapter concludes with a brief summary outlining the potential residual effects for the construction phase (short / medium) and operation (long-term) phase of the Proposed Development along with any cumulative effects.

Assessment of Effects

3.5.2 The assessment of significance of effects has been undertaken using appropriate national and international quality standards. Where no such standards exist, the judgements that underpin the attribution of significance have been described. The guidelines, methods and techniques used in the process of determining significance of effects are contained within each of the topic chapters presented.

3.5.3 The ES considers the following periods to support the assessment of likely significant effects:

- Existing baseline (2023-2024);
- Peak construction effects (2028); and
- Full operation (2030).

3.5.4 The ES identifies the likely significant effects of construction of the Proposed Development against the 2023-2024 baseline.

3.5.5 The assessment of operational effects is undertaken against the future baseline in 2030 (the 'without development' / 'do nothing' scenario, see **ES Vol 2, Chapter 4: Alternatives Considered and Design Evolution**), unless otherwise stated in the individual topic chapters.

3.5.6 Certain topics have undertaken an assessment of peak construction effects to ensure a reasonable worst-case scenario is considered and that any conclusions are sufficiently robust to accommodate potential changes in the construction methodology. Where a worst-case scenario has been assessed, this has been set out in the assumptions and limitations section of the topic chapters (**ES Vol 2, Chapters 6 to 12**).

3.5.7 Construction traffic is anticipated to access the Site via Barrow Green Road. **ES Vol 2, Chapter 5: The Proposed Development and Construction Overview** provides further detail on the proposed construction methodology and outlines the key construction activities that are likely to generate environmental effects.

Defining Significance

3.5.8 The changes generated by a development project may result in outcomes which are considered to be positive or adverse, and in some cases may be considered to be neutral. Examples would include: new scheme-related noise or air pollution, changes in lighting levels, loss of habitat or topsoil, new planting and habitat re-provision, changes to the townscape, loss of surface permeability, waste production, etc.

3.5.9 Examples of receptors / resources that might be affected by such changes include: people (residents, passers-by, workers etc.), designated sites (Sites of Specific Scientific Interest, Conservation Areas, groundwater protection zones etc.) and non-designated environmental resources of value.

3.5.10 Effects come about as the result of imposing changes on receptor / resources. The physical extent of effects (in terms of the geographical area affects, or the size of the human population affected, or the spatial extent of any protected species or habitats affected) should all be taken into account when assessing the importance of likely changes along with duration, frequency and reversibility.

3.5.11 Step 1 of the process of assessing the significance of an effect (i.e. the imposition of a change onto a receptor / resource) is to identify all relevant combinations of change and receptor / resource which may arise as a consequence of implementing the Proposed Development. This is most easily and clearly done by dividing the assessment by topic area and then further sub-

dividing within topic areas the source and type of change (distinguishing between direct, indirect and secondary) and the receptor(s) affected by this.

3.5.12 Step 2 is to use professional judgement and / or appropriate best practice guidance (and taking into account specific statutory or non-statutory values and objectives as may be applicable, for example, in relation to air quality or water quality threshold values) to identify:

- The sensitivity of the receptors / resources concerned;
- The strength (and the geographical scale at which the change is identified), duration and frequency of the likely changes; and
- To score these components of the effect under consideration.

3.5.13 The duration of an effect can be assessed to be:

- Temporary (e.g. construction phase); and
- Permanent (e.g. once the Proposed Development is completed and operational).

3.5.14 Where appropriate and greater precision is helpful, the following terms can also be used:

- short term (<5 years);
- medium term (5-10 years); and
- long term (>10 years).

3.5.15 Some changes will affect different receptors / resources to different degrees, and some receptors / resources may be affected by a range of potential changes (to which they may well exhibit different sensitivities). Significance must, therefore, be judged in the context of a specific combination of change and receptor / resource sensitivity.

3.5.16 Generic criteria for determining the value / sensitivity of a receptor or resource based on its relative importance and its ability to accommodate change and / or recover from impacts is provided in **Table 3.4.**

Table 3.4: Criteria for Determining Value / Sensitivity

Sensitivity	Examples of Receptor/Resources
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 detriments to its character or is of low or local importance.

3.5.17 Generic criteria for determining the magnitude of an impact based on the strength of change, the geographical scale at which it is identified, the duration, frequency and reversibility of the change is provided in **Table 3.5**.

Table 3.5: Criteria for Determining Magnitude of Impact

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.

3.5.18 Step 3 of the process of assessing the significance of an effect is to describe and document the outcome of Steps 1 and 2, and to judge the significance of each potential effect determined by the interaction of value / sensitivity and magnitude, whereby the effects can be beneficial, adverse or neutral.

3.5.19 A generic Effect Significance Matrix is set out in **Table 3.6** to assist in this judgement of significance, whereby it is generally considered that any effect greater than "minor" is considered a significant effect.

Table 3.6: Effect Significance Matrix

Magnitude of impact	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	Moderate – Minor Adverse / Beneficial
Minor	Moderate – Minor Adverse / Beneficial	Minor Adverse / Beneficial	Minor Adverse / Beneficial - Negligible
Negligible	Negligible	Negligible	Negligible

3.5.20 In all cases, the author should exercise professional judgement and take account of all relevant topic specific standards, guidance and threshold in assessing the significance of an effect.

3.5.21 Step 4 is to record those effects which are to be treated as significant, and to identify those effects which, while not in the end deemed to be significant, may well need to be considered further in the context of cumulative effects.

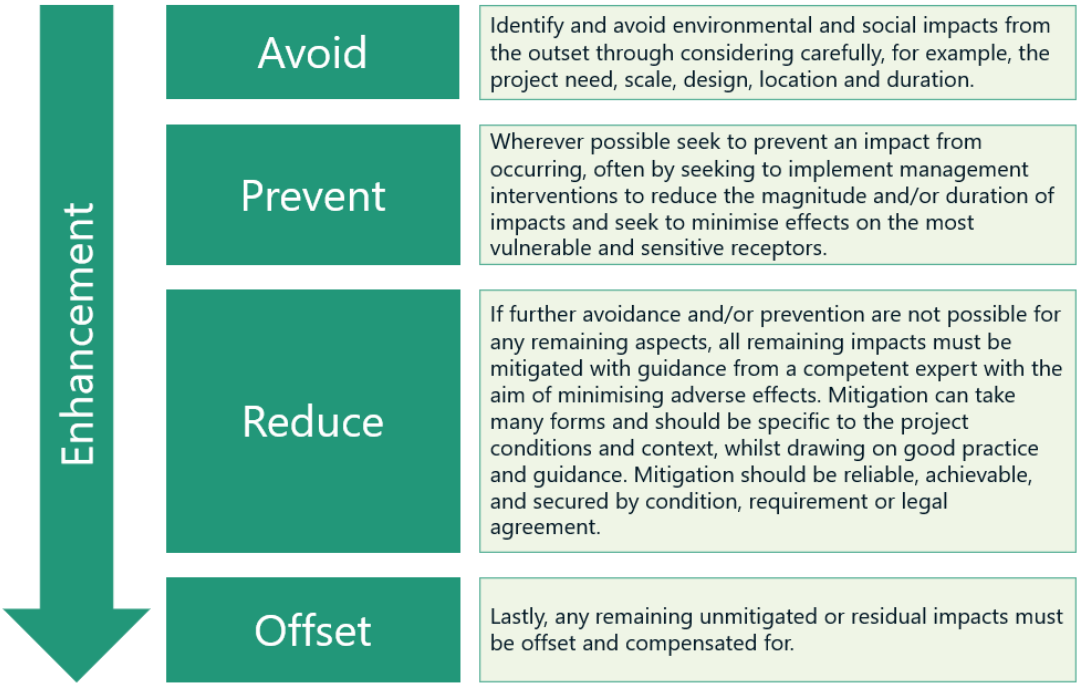
3.5.22 The matrix presented above in **Table 3.6** is widely accepted and used within the EIA industry. The magnitude and significance criteria have been provided as a guide for technical specialists to assess effect significance.

3.5.23 Where discipline specific methodology has been applied that differs from the generic criteria above, this has been clearly explained within the given chapter under the heading of Assessment Methodology and Significance Criteria.

Mitigation Measures

3.5.24 Any potentially significant adverse effects have been considered for mitigation at the design stage and, where practicable, specific measures have been put forward. Measures have been considered based on the hierarchy of mitigation set out in **Figure 3.2**.

Figure 3.2: Mitigation Hierarchy



3.5.25 Where the effectiveness of the mitigation proposed has been considered uncertain, or where it depends upon assumptions of operating procedures, data and / or professional judgement has been introduced to support these assumptions.

3.5.26 Mitigation to be implemented during the construction and operational phases will be secured through planning conditions and obligations.

3.5.27 Two main types of potential mitigation measures have been assessed:

- Embedded Mitigation (Primary Mitigation) – embedded mitigation includes both factors inherent to the design (primary mitigation) and actions that are required for legal compliance or as standard control measures (tertiary mitigation), which have been taken into account in an initial assessment of the effects. The Proposed Development have been developed in such a way that the reduction and, wherever possible, elimination of any associated significant adverse environmental effects is integral to the overall design philosophy. The embedded mitigation measures will be captured and implemented through the design of the Proposed Development or provisions of a CEMP and are also presented within the technical chapters (**ES Vol 2, Chapters 6 to 12**).
- Additional Mitigation (Secondary Mitigation) – further additional mitigation measures may be introduced, where appropriate, and are taken into account in the assessment of residual effects. Where it has not been possible to avoid adverse significant environmental effects, such additional mitigation and monitoring measures are discussed as applicable in the relevant technical chapter.

Residual Effects

3.5.28 The likely residual effects on the environment, assuming the successful implementation of the mitigation measures proposed, are identified within each assessment.

3.5.29 The residual effects will be assessed using the same system as described above taking account of any assessment mitigation proposals. Generally, based on the described classification and professional judgement, effects considered to be moderate or major will be deemed significant, and those considered minor, or negligible, will be deemed not significant.

Cumulative Effects

3.5.30 The EIA Regulations specify that the description of the likely significant effects within an ES should include *"the direct effects and any indirect, secondary, cumulative…effects"*.

3.5.31 There are two types of cumulative effects: Type 1, intra-project effects which are the combined effects of individual topic impacts on a particular sensitive receptor, and Type 2, inter-project effects which are the combined effects of several development schemes (in conjunction with the Proposed Development) which may, on an individual basis be insignificant but, cumulatively, have a significant effect.

3.5.32 The ES has given consideration to cumulative effects for schemes located within an approximate 5 km radius from the boundary of the Site. Using professional judgement, it is considered that this spatial extent represents a suitable area over which any potential cumulative effects may occur. Any variations from this 5 km radius boundary within individual topic assessments are set out in the respective technical chapters. The cumulative schemes considered include:

- Existing and/or approved schemes (sites with planning permission not started or under construction).
- Current applications (yet to be determined).
- Schemes that are subject to an EIA Scoping Request.
- For certain topics (e.g. visual impact) it may be appropriate to include developments outside of this area of search, should those projects' individual characteristics warrant it (e.g. a particularly tall building). Additional schemes for each topic will be identified within the individual topic chapters.

3.5.33 The EIA Regulations only require consideration of other existing and or approved schemes; however, in order for the list to remain up to date at the time of submission, submitted applications up to two years prior to the submission of the planning application have been considered.

3.5.34 **Table 3.7** sets out the consented and committed schemes for consideration in the cumulative effects assessments, some of which are now known to be operational and therefore form part of the existing baseline. While the Land at Chichele has been refused at appeal, it remains included as a cumulative scheme as it may have potential for an alternative scheme or design.

3.5.35 The schemes are also shown spatially on **Figure 3.3** at the end of this chapter.

Table 3.7: Schemes for Consideration in the Cumulative Effects Assessment

Authority	Site	Planning App Ref	Summary of Development	Distance from Site	Planning Status/ Approval Date
Planning Inspectorate Ref. 1	Land at Chichele Road, Oxted	2023/1345 APP/M3645/W/24/3345915	Proposed residential development 116 Dwellings (Class C3) including affordable housing with associated access, car parking, soft landscaping and play provision.	175 m	Appeal decision determined Refused
Planning Inspectorate Ref. 2	Land Off Oxted Road (a25), Oxted.	APP/M3645/W/21/3272384	Erection of crematorium facility with associated memorial areas,	1.6 km	Approved 30 Sep 2021

Authority	Site	Planning App Ref	Summary of Development	Distance from Site	Planning Status/ Approval Date
			landscaping, parking and infrastructure.		
Surrey County Council Ref. 3	Oxted Quarry, Chalkpit Lane, Oxted.	TA/2023/1135	Cessation of winning and working of minerals and importation of waste. A revised scheme of restoration to create a natural parkland with public access, footpaths and ecological habitat areas and erection of 75 dwellings, a proportion of which would be affordable housing, and associated hard and soft landscaping and access, provision of a field study centre, restoration of the historic lime kilns, and works to Chalkpit Lane including traffic calming and a new footway link to Oxted.	1 km	Under consideration

3.6 Interactive effects

3.6.1 Interactive effects are also considered in the ES. Interactive effects arise where a receptor experiences multiple effects of the Proposed Development (often across different environmental topics), and where the effect of one topic alters the experience of the effect of another topic. Common examples of these include:

- the combined nuisance effect of increased traffic, noise and air pollution, and adverse visual impacts during construction;
- changes to ground conditions and water levels and the resultant impact on archaeological remains; and
- increased demand on open space exacerbated by effects that would worsen the experience of using current amenity spaces.

3.7 Assumptions and Limitations

3.7.1 The principal assumptions that have been made and any limitations that have been identified in preparing the ES are set out in each technical chapter. General assumptions include the following:

- assessments primarily assume the baseline conditions in 2023-2024 when the majority of the baseline surveys were undertaken;
- current surrounding land uses do not change, with the exception of the cumulative developments identified;
- assessments are based on published sources of information and primary data collection. Sources are provided as necessary;
- assessments are based on the description of the Proposed Development and the anticipated construction methodology and programme summarised in **ES Vol 2, Chapter 5: The Proposed Development and Construction Overview**;
- the design, construction and operational phases of the Proposed Development will satisfy minimum environmental standards, consistent with contemporary legislation, practice and knowledge;
- planning permissions, when granted, will contain conditions that will control disturbance during construction and operation, and be sufficient to limit the development to that which has been assessed in the EIA;
- any future development of the Site, beyond the Proposed Development to which this ES relates, will be determined through separate planning applications and is not assessed within this ES; and
- the construction information on which the assessments are derived, are based on the best information available at the time of writing and represent a reasonable scenario of how the Proposed Development may be implemented.

3.8 Objectivity

3.8.1 The technical studies undertaken within the ES have been progressed in a transparent, impartial and unbiased way with equal weight attached, as appropriate, to beneficial and adverse effects. Where possible, this has been based upon quantitative and accepted criteria together with the use of value judgements and expert interpretations.

3.8.2 The assessment has been explicit in recognising areas of limitation within the ES and any difficulties that have been encountered, including assumptions

upon which the assessments are based. Where appropriate, the assessment of significance has been given confidence levels.

Figure 3.3: Cumulative Schemes

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