Homes England

The Housing and Regeneration Agency

West of Ifield, Crawley
Environmental Statement: Volume 1: Main Report

CHAPTER 6: SOIL AND AGRICULTURE
Version 1 - Planning submission

July 2025

6 SOIL AND AGRICULTURE

6.1 Introduction

6.1.1 This chapter of the ES reports on the identification and assessment of likely significant soil and agricultural land quality effects to arise from the demolition and construction stage and operational stage of the Proposed Development.

6.1.2 The chapter describes the legislation, policy and guidance framework; the methods used to assess the potential impacts and likely effects; the baseline conditions at the Site and within the study area; the likely soil and agricultural land quality effects and the setting out of proposed mitigation measures, where feasible, in respect of any identified likely significant effects; proposed additional mitigation and any enhancement measures where applicable; the significance of residual effects; and inter-project cumulative effects.

6.1.3 The chapter is supported by the following technical appendices in ES Volume 2:

- **Appendix 6.1:** Resource Planning Team, Guildford Statutory Group, ADAS Reading, for the Ministry of Agriculture, Fisheries and Food (1995). Horsham District Local Plan. Agricultural Land Classification: Land at Ifield Court Farm, Crawley. ADAS Reference 4205;18/95; MAFF Reference EL 42/130; and
- **Appendix 6.2**: Framework Soil Management Plan (FSMP).

6.2 Policy Context and Guidance

6.2.1 The assessment has been informed by the following legislation, policies and published guidance:

- National Legislation and Policy:
  - Schedule 4.2(c) of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017[1] states that the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the Proposed Development on the following factors: land, soil, water, air and climate;
  - Schedule 4(y) of The Town and Country Planning (Development Management Procedure (England) Order) (DMPO) 2015[2]. Sets out a requirement to consult Natural England if more than 20 ha of Best and Most Versatile (BMV) agricultural land is proposed for non-agricultural development;
  - National planning policy guidance on development involving agricultural land is set out in the NPPF)[3]. The NPPF includes policy guidance on *'Conserving and Enhancing the Natural Environment'* (Section 15). Paragraph 187 (a and b) and Paragraph 188 are of relevance to this assessment of soil and agricultural land quality; and
  - There is no guidance in policy with regard to the effects of development proposals on farm holdings in the NPPF (2024), although paragraph 88(b) of the NPPF emphasises the need to enable development and diversification of agricultural and other land-based rural businesses.
- Local Policy:
  - The West Sussex Structure Plan (2001 – 2016)[4] includes Policy ERA5 which describes how development should not be permitted unless the quality of, and where appropriate the quantity of, the air, soil and water resources of the County will be protected and, where possible, enhanced;

[1] UK Statutory Instruments (2017). No. 571. 'The Town and Country Planning (Environmental Impact Assessment) Regulations 2017'. Available online at https://www.legislation.gov.uk/uksi/2017/571/contents/made Last accessed February 2025
[2] UK Statutory Instruments (2015). No. 595SCHEDULE 4. 'The Town and Country Planning (Development Management Procedure) (England) Order 2015'. Available online at https://www.legislation.gov.uk/uksi/2015/595/schedule/4/made Last accessed February 2025
[3] Ministry of Housing, Communities & Local Government (2024). National Planning Policy Framework. Updated 12th December 2024.
[4] Policy ERA5 The West Sussex Structure Plan (2001 – 2016). Available online @ https://www.westsussex.gov.uk/media/7125/structure_plan_05.pdf Last accessed February 2025

- The Horsham District Planning Framework (2015)[5] includes an Objective Theme to safeguard and enhance the environmental quality of the district (Objective 11), ensuring that development maximises opportunities for biodiversity and minimises the impact on environmental quality including air, soil, water quality and the risk of flooding;
- The Draft Horsham District Local Plan 2019-2036[6] does not contain any specific policy regarding agricultural land quality or soil, in which case consideration should be given to relevant policy in the NPPF as above; and
- Rusper Neighbourhood Plan 2018-2031[7] does not contain any specific policy regarding agricultural land quality or soil, however it does comment on there being a number of farms and farm buildings within the Rusper parish.

- National guidance and industry standards:
  - The aims and objectives for safeguarding and, where possible, improving soil health are set out in the following:
  - The Government has produced a '*Guide to Assessing Development Proposals on Agricultural Land (2021)*'[8]. This guide sets out the relevant planning policy, statutory requirements for consulting Natural England, sources of published Agricultural Land Classification (ALC) information, and the methodology for undertaking an ALC survey;
  - The Institute of Civil Engineering (ICE) (2021) provides guidance on assessing agricultural land quality and soil in the '*Environmental Impact Assessment Handbook: A practical guide for planners, developers and communities*'[9];
  - The Institute of Environmental Assessment and Management (IEMA) (2022) has produced a '*New Perspective on Land and Soil in Environmental Assessment*'[10], which encourages a new approach a new approach to assessing soil functions, ecosystem services and natural capital provided by land and soils;
  - The Department for Environment, Food and Rural Affairs (Defra) has published '*Safeguarding our Soils – A Strategy for England (2009)*'[11] which sets out an ambitious vision to protect and improve soil to meet an increased global demand for food and to help combat the adverse effects of climate change;
  - The Soil Strategy was published in tandem with a 'Code of Practice for the Sustainable Use of Soils on Construction Sites (2009)'[12];
  - This assessment also considers recent guidance produced by the Soils in Planning Construction Task Force (Lancaster University *et al*) regarding '*Building on soil sustainability: Principles for soils in planning and construction*' (September 2022)[13];
  - Best practice for the handling of soil is set out in the Institute of Quarrying (2021) '*Good Practice for Handling Soils in Mineral Workings*' (Sheets A to E are of main relevance to this assessment)[14];

[5] Horsham District Council Local Development Scheme 2019 –2022 (2015) Available online @ https://horsham.moderngov.co.uk/documents/s12462/008%20-%20Draft%20LDS%202019%20v3.pdf Last accessed February 2025

[6] Draft Horsham District Local Plan 2019-2036 Available online @ https://strategicplanning.horsham.gov.uk/LocalPlanReview/viewCompoundDoc?docid=10336756 Last accessed February 2025

[7] Rusper Neighbourhood Plan 2018-2031

[8] Natural England (2021) 'Guide to assessing development proposals on agricultural land'. Available online at https://www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land Last accessed February 2025

[9] Askew, R.W. Section 7.4 'Soil' and Section 7.11 'Agricultural Land; in Institute of Civil Engineers (ICE) (2021) 'Environmental Impact Assessment Handbook: A practical guide for planners, developers and communities, Third edition'. Available online at https://www.icevirtuallibrary.com/doi/abs/10.1680/eiah3e.61415.169 Last accessed February 2025

[10] Institute of Environmental Assessment and Management (2022) 'A New Perspective on Land and Soil in Environmental Impact'. Available online at https://www.iema.net/articles/iema-publishes-new-land-and-soils-guidance Last accessed February 2025

[11] Department for Environment, Food and Rural Affairs (2009). 'Safeguarding our soils: A strategy for England'. Available online @ https://www.gov.uk/government/publications/safeguarding-our-soils-a-strategy-for-england Last accessed February 2025

[12] Department for Environment, Food and Rural Affairs (September, 2009) '*Code of Practice for the Sustainable Use of Soils on Construction Sites'*. Available online @ https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites. Last accessed February 2025

[13] Soils in Planning Construction Task Force (September 2022) '*Building on soil sustainability: Principles for soils in planning and construction*'. Available online at https://wp.lancs.ac.uk/sustainable-soils/files/2022/09/Soils-in-Planning-and-Construction-Sept-22.pdf Last accessed February 2025

[14] Institute of Quarrying (2021) 'Good Practice Guide for Handlings Soils in Mineral Workings'. Available online at https://www.quarrying.org/soils-guidance Last accessed February 2025

- British Society of Soil Science (2022). 'Working with Soil Guidance Note Document 3: Benefitting from Soil Management in Development and Construction'[15]; and
- HS2 Phase 2b: Crewe to Manchester and West Midlands to Leeds – Environmental Impact Assessment 'Scope and Methodology Report (2018)'[16].

6.3 Consultation

6.3.1 As set out in the Government's '*Guide to Assessing Development Proposals on Agricultural Land*', it should be noted that local planning authorities (LPAs) must consult Natural England on all non-agricultural applications that result in the loss of more than 20 hectares (ha) of BMV land if the land is not included in a development plan. For example, this includes the likely cumulative loss of BMV land from the Proposed Development if it is part of a phased development. This is required by schedule 4(y) of the Order.

6.3.2 Natural England maintains the national ALC database, and ALC information which is publicly available ALC online[17] has been utilised as baseline information in this assessment.

6.3.3 The initial formal Scoping Opinion was issued by HDC in November 2020 (HDC ref: EIA/20/0004), based on the Applicant's intention to submit an outline planning application for the Site. However, the Applicant decided to pursue a hybrid application, it became necessary to review and reassess the scope of the ES for the revised Proposed Development, as outlined in the ES Scoping Opinion Request Report dated 17th October 2023. Subsequently, a new scoping opinion was requested and received in November 2023 (HDC ref: EIA/23/0007). Since November 2023, the design of the Proposed Development has altered slightly with the addition of proposed groundwater abstraction wells, and therefore it was considered necessary to reassess the scope of the ES once again. An additional Scoping Opinion regarding the revised hybrid planning application was adopted on the 15th July 2024.

6.3.4 This chapter also addresses the specific EIA Scoping Response on Soils and Agricultural Land Quality from Natural England provided to HDC on the 4th July 2024.

6.3.5 Table 6-1 summarises the key EIA Scoping Opinion responses and separate consultations that have been undertaken with respect to the soil and agriculture assessment.

Table 6-1: Summary of Consultation

Consultee and Form/Date of Consultation	Summary of Comments	Where in this Chapter Comments are addressed
Horsham District Council (HDC). Request for a formal Scoping Opinion for the proposed development at Land West of Ifield, Horsham. Response dated 30th November 2020. HDC Ref. EIA/20/0004	ES chapter 'Soils and Agriculture': No comment.	This chapter follows the assessment of soils and agriculture set out in the Scoping Report
Horsham District Council (HDC). Request for a formal Scoping Opinion for the proposed development at Land West of Ifield, Horsham. Response dated 27th November 2023 (HDC Ref. EIA/23/0007)	5. Agriculture and Soils No comment.	This chapter follows the assessment of soils and agriculture set out in the Scoping Report.

[15] British Society of Soil Science (2022). 'Working with Soil Guidance Note Document 3: Benefitting from Soil Management in Development and Construction' https://soils.org.uk/wp-content/uploads/2022/02/WWS3-Benefitting-from-Soil-Management-in-Development-and-Construction-Jan-2022.pdf Last accessed February 2025

[16] HS2 Phase 2b (2018): Crewe to Manchester and West Midlands to Leeds Environmental Impact Assessment Report Scope and Methodology Report. Available online at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/745450/HS2_Phase_2b_Working_Draft_ES_EIA_Scope_and_Methodology_Report.pdf Last accessed February 2025

[17] Multi Agency Information System for the Countryside (MAGIC). Agricultural Land Classification Information. Available online at https://magic.defra.gov.uk/ Last accessed February 2025

Table 6-1: Summary of Consultation		
Horsham District Council (HDC) EIA Scoping Opinion adopted on the 15th of July 2024 (HDC Ref. EIA/24/0003)	5. Agriculture and Soils No comment.	This chapter follows the assessment of soils and agriculture set out in the Scoping Report.
Natural England EIA Scoping Response dated: • 8th November 2023 Natural England Ref. 455868 • 4th of July 2024. Natural England Ref. 478271	NOTE: Natural England's Scoping Reponses on 8th November 2023, and 4th July 2024 are similar in approach and cover the following: Soils and Agricultural Land Quality Soils are a valuable, finite natural resource and should also be considered for the ecosystem services they provide, including for food production, water storage and flood mitigation, as a carbon store, reservoir of biodiversity and buffer against pollution. It is therefore important that the soil resources are protected and sustainably managed. Impacts from the development on soils and best and most versatile (BMV) agricultural land should be considered in line with paragraphs 180 and 181 of the NPPF [*note: applicable paragraphs at the time of writing*]. Further guidance is set out in the Natural England Guide to assessing development proposals on agricultural land. As set out in paragraph 217 of the NPPF, new sites or extensions to sites for peat extraction should not be granted planning permission. The following issues should be considered and, where appropriate, included as part of the Environmental Statement (ES): • The degree to which soils would be disturbed or damaged as part of the development • The extent to which agricultural land would be disturbed or lost as part of this development, including whether any best and most versatile (BMV) agricultural land would be impacted. This may require a detailed Agricultural Land Classification (ALC) survey if one is not already available. For information on the availability of existing ALC information see www.magic.gov.uk. • Where an ALC and soil survey of the land is required, this should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full	This chapter follows the assessment of soils and agriculture set out in Natural England's Scoping Response, and utilises the best practice guidance recommended. The assessment of Agricultural Land Classification (ALC) grade(s) at the Site has used a Ministry of Agriculture, Fisheries and Food (MAFF) Post 1988 ALC survey (Ref. Land at Ifield Court Farm, Crawley. ADAS Reference 4205;18/95; MAFF Reference EL 42/130). This determined that agricultural land at the Site is Subgrade 3b, and there is no Best and Most Versatile (BMV) land.

Table 6-1: Summary of Consultation

	depth of the soil resource, i.e. 1.2 metres. The survey data can inform suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space). • The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan. • The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site impacts. Further information is available in the Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites and The British Society of Soil Science Guidance Note Benefitting from Soil Management in Development and Construction.	

6.4 Assessment Scope

6.4.1 The assessment has been undertaken in accordance with relevant soils and agricultural land guidance and aligns with the methodology outlined in ES Volume 1 Chapter 2: EIA Process and ES Methodology, and included in the 2024 Scoping Report (ES Volume 2 Technical Appendix 2.1). The assessment has taken account of all applicable legislation, national, regional and local policy, guidance and the ES Scoping Opinions.

Technical Scope

6.4.2 The technical scope of the assessment has considered the following during the construction phase:

- Soil resources available for restoration of the Site, as per paragraph 187 of the NPPF (December 2024);
- Agricultural land quality, particularly the likely significant effects on the BMV agricultural land, i.e., ALC Grade 1, Grade 2 and Subgrade 3a, as set out in paragraphs 187 of the National Planning Policy Framework (NPPF) revised in December 2024;
- Potential effects on affected farm businesses; and
- Potential effects on agricultural land entered into agri-environmental schemes.

Spatial Scope

6.4.3 The spatial/geographical scope used in this assessment of agricultural land and soil includes land within the Site boundary and committed developments on agricultural land within a 5km radius of the Site as part of the cumulative assessment (see Table 6.2 below).

Temporal Scope

6.4.4 The assessment has considered effects arising during the demolition and construction stage which would be of expected to be temporary and short to long term (5-15 years) in nature and from the completed development stage which would be expected to be permanent and long-term in nature (i.e., more than 10 years).

6.5 Baseline Characterisation Method

Desk Study

6.5.1 To establish baseline conditions in the study area, relevant data was reviewed and assessed. Data was obtained from the following sources:

- Soil Survey of England and Wales soil map for South-Eastern England (1:250,000)[18];
- Soils and their use in South-Eastern England, Soil Survey of England and Wales Bulletin No.13[19];
- Post 1988 Agricultural Land Classification[20];
- Likelihood of Best and Most Versatile Agricultural Land (1:250,000)[21];
- Meteorological data for Agricultural Land Classification[22];
- British Geological Survey information[23];
- Natural England (2012) 'Agricultural Land Classification: protecting the best and most versatile agricultural land'[24]; and
- Resource Planning Team, Guildford Statutory Group, ADAS Reading, for the Ministry of Agriculture, Fisheries and Food (MAFF) (1995). Horsham District Local Plan. Agricultural Land Classification: Land at Ifield Court Farm, Crawley. ADAS Reference 4205;18/95; MAFF Reference EL 42/130 (included as ES Volume 2 Technical Appendix 6.1).

Field Study

6.5.2 Field study/data collection was not required at the Site as the data provided by other sources, i.e., MAFF ALC/soil survey (ES Volume 2 Technical Appendix 6.1) is adequate and representative of the Site conditions.

6.6 Assessment Method

Methodology

Demolition and Construction Stage

6.6.1 Baseline information on soil and agricultural land quality, primarily from the MAFF ALC/soil survey (ES Volume 2 Technical Appendix 6.1) has been utilised in this assessment. No other survey, or modelling, is considered necessary. The ALC system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The ALC system divides agricultural land into five grades (Grade 1 '*Excellent*' to Grade 5 '*Very Poor*'), with Grade 3 subdivided into Subgrade 3a '*Good*' and Subgrade 3b '*Moderate*'. Agricultural land classified as Grade 1, 2 and Subgrade 3a falls in the '*best and most versatile*' category in Paragraph 187 and 188 of the NPPF

[18] Soil Survey of England and Wales (1983). Soil Map for Eastern England (1:250,000)
[19] C.A.Hodge, R.G.O. Burton, W.M. Corbett, R. Evans, and R.S. Seale (1984) 'Soils and their use in Eastern England', Soil Survey of England and Wales Bulletin No.13, Harpenden
[20] Ministry of Agriculture, Fisheries and Food (MAFF). Pre 1988 and Post 1988 Agricultural Land Classification. MAGIC website available online @ www.Magic.gov.uk;
[21] Department for Environment, Food and Rural Affairs (2005). Likelihood of Best and Most Versatile Agricultural Land (1:250,000). Available online @ http://publications.naturalengland.org.uk/category/5208993007403008
[22] Meteorological Office. (1989) Gridpoint Meteorological data for Agricultural Land Classification of England and Wales and other Climatological Investigations
[23] British Geological Survey. Solid and superficial deposits from the Geology of Britain viewer. Available online @ www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html
[24] Natural England (2012) 'Agricultural Land Classification: protecting the best and most versatile agricultural land'. Available online @ http://publications.naturalengland.org.uk/publication/35012

(December 2024). The MAFF ALC soil survey involved the examination of the soil's physical properties at 21 auger-bores. The soil profiles were examined at each sample location to a maximum depth of approximately 1.2 m by hand with the use of a 5cm diameter Dutch (Edleman) soil auger. Two representative soil pits were excavated by hand with a spade in order to examine certain soil physical properties, such as stone content and the structural condition of the subsoil in detail.

Completed Development Stage

6.6.2 This has been scoped out, as it is predicted there are no significant additional effects on soil and agriculture once the Proposed Development is constructed.

Cumulative Stage

6.6.3 The committed developments which are predicted to have a significant effect on soil and agricultural land (within 5km of the Site) in combination with the Proposed Development are identified in Table 6-2.

Table 6-2: Committed Developments for Inclusion in Cumulative Assessment

Local Planning Authority	LPA Reference No.	High Level Description of Scheme	Reason for inclusion in cumulative assessment
HDC	DC/16/1677	Outline planning for mixed use development with up to 2,750 dwellings	Includes loss of agricultural land
HDC	DC/18/2687	Outline application for mixed used development with up to 300 dwellings	Includes loss of agricultural land
HDC	EIA/24/0006	EIA scoping opinion request for development of a new garden village comprising approximately 2,125 homes.	Includes loss of agricultural land
Crawley Borough Council (CBC)	CR/2022/0055/FUL	Full application for erection of 60 dwellings and associated infrastructure	Includes loss of agricultural land
CBC	CR/2021/0355/OUT	Outline application for development of up to 138 homes, and provision of new public space, clubhouse and other ancillary works	Includes loss of agricultural land
CBC	CR/2020/0192/RG3	Regulation 3 for erection of 85 houses and flats with associated works	Includes loss of agricultural land

6.7 Assessment Criteria

6.7.1 The general criteria used to assess if an effect is significant or not, is set out in ES Volume 1 Chapter 2: EIA Process and ES Methodology, further details specific to soil and agricultural land are provided herein. This is determined by consideration of the sensitivity of the receptor, magnitude of impact and scale of the effect. In considering the significance of an effect, consideration has been given to the duration of the effect, the geographical extent of the effect and the application of professional judgement.

Receptor Sensitivity/Value Criteria

6.7.2 Consideration has been given to the Sensitivity of Receptor and Magnitude of Effect in relation to agricultural land quality and soil following the approach of the Institute of Environmental Management and Assessment's (IEMA) '*A New Perspective on and Soil in Environmental Impact Assessment*' (2022), as described below.

6.7.3 The sensitivity of receptors has been classified as low, medium or high, in accordance with the criteria set out in Table 6-3.

Table 6-3: Receptor Sensitivity Criteria: Soil Functions and Agricultural Land Quality

Sensitivity	Criteria
Low	• **Biomass production**: ALC Grades 4 & 5 or LCA Grades 4.1 to 7 or Urban soils

Table 6-3: Receptor Sensitivity Criteria: Soil Functions and Agricultural Land Quality	
	• **Ecological habitat, soil biodiversity and platform for landscape**: Soils supporting valued features within non-designated notable or priority habitats/landscapes • **Soil carbon**: Mineral soils • **Soil hydrology**: Pathway* for local water flows and flood risk management • **Archaeology, Cultural heritage, Community benefits and Geodiversity**: Soils supporting no notable cultural heritage, geodiversity nor community benefits; Soils supporting limited community/recreational/educational access to land • **Source of materials**: Surface mineral reserves that would remain accessible for extraction • **Farm types** and land uses undertaken on a non-commercial basis.
Medium	• **Biomass production**: ALC Grade 3b or LCA Grade 3.2 • **Ecological habitat, soil biodiversity and platform for landscape**: Soils supporting protected or valued features within non-statutory designated sites (e.g., Local Nature Reserves (LNR), Local Geological Sites (LGSs), Sites of Nature Conservation Importance (SNCIs), Special Landscape Areas; Non-Native Forest and woodland soils • **Soil carbon**: Mineral soils • **Soil hydrology**: Important minor catchment pathway* for water flows and flood risk management • **Archaeology, Cultural heritage, Community benefits and Geodiversity**: Soils in adjacent areas to Scheduled Monuments (SMs) but not directly underlying the SM; Soils with possible but as yet unproven (prior to being revealed by construction) archaeological interest (see ES Volume 1, Chapter 10: Archaeology and Cultural Heritage for an assessment of effects on any artifacts in the soil); Soils supporting community/recreational/educational access to land • **Source of materials**: surface mineral reserves that would remain accessible for extraction • **Farm types** in which there is a degree of flexibility in the normal course of operations, e.g.: ▪ combinable arable farms; and ▪ grazing livestock farms (other than dairying).
High	• **Biomass production**: ALC Grade 1, 2 and Subgrade 3a • **Ecological habitat, soil biodiversity and platform for landscape**: Soils supporting protected features within a European designated site (e.g., Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar); Peat soils; Soils supporting a National Park, or Ancient Woodland. Also, soils supporting protected features within a UK designated site (e.g., UNESCO Geoparks, Site of Special Scientific Interest (SSSI) or Area of Outstanding Nature Beauty (AONB), Special Landscape Area, and Geological Conservation Review sites); Native Forest and woodland soils; Unaltered soils supporting semi-natural vegetation (including UKBAP Priority habitats) • **Soil carbon**: Peat soils and organo-mineral soils (e.g., peaty soils) • **Soil hydrology**: Important catchment pathway* for water flows and flood risk management • **Archaeology, Cultural heritage, Community benefits and Geodiversity**: Direct impact to Scheduled Monuments (SMs); World Heritage designated sites; Soils with known archaeological interest; Historic parks and gardens; Regionally important geological sites (RIGS) (see ES Volume 1, Chapter 10: Archaeology and Cultural Heritage); Soils supporting community/recreational/educational access to RIGS and AONBs • Soils supporting community/recreational/educational access to land covered by National Park designation • **Source of materials**: Surface mineral reserves that would be sterilised (i.e., without future access) • **Farm types** in which the operation of the enterprise is dependent on the spatial relationship of land to key infrastructure, and where there is a requirement for frequent and regular access between the two, or dependent on the existence of the infrastructure itself, e.g.: ▪ dairying, in which milking cows travel between fields and the parlour at least twice a day;

Table 6-3: Receptor Sensitivity Criteria: Soil Functions and Agricultural Land Quality	
	▪ irrigated arable cropping and field-scale horticulture, which are dependent on irrigation water supplies; and ▪ intensive livestock or horticultural production, which is undertaken primarily within buildings, often in controlled environments.
*As defined by the Site and catchment characteristics according to the professional judgement of a catchment hydrologist	

Impact Magnitude Criteria

6.7.4 The magnitude of impact has been classified as low, medium or high, in accordance with the criteria set out in Table 6-4.

Table 6-4: Impact Magnitude Criteria		
Magnitude of Impact	**Adverse/ Beneficial**	**Descriptor**
Unknown	Unknown	Where magnitude of impact is unknown
Low	Adverse	Permanent, irreversible loss over less than 5ha or a temporary, reversible loss of one or more soil functions or soil volumes, or temporary, reversible loss of soil-related features set out in Table 6.3; No adverse effects on agricultural holdings; and Farm holdings – between 5% and 10% of all land farmed
	Beneficial	Potential for permanent improvement in one or more soil functions or soil volumes due to remediation or restoration over an area of less than 5ha or a temporary improvement in one or more soil functions due to remediation or restoration or off-Site improvement, or temporary gain in soil-related features set out in Table 6.3 No beneficial effects on agricultural holdings.
Medium	Adverse	Permanent, irreversible loss of one or more soil functions or soil volumes, over an area of between 5 and 20ha or loss of soil-related features set out in Table 6.3 above (including effects from 'Temporary Developments'*); and Farm holdings – between 10% and 20% of all land farmed
	Beneficial	Potential for improvement in one or more soil functions or soil volumes due to remediation or restoration over an area of between 5 and 20 ha, or gain in soil-related features set out in Table 6.3.
High	Adverse	Permanent, irreversible loss of one or more soil functions or soil volumes (including permanent sealing or land quality downgrading), over an area of more than 20 ha or loss of soil-related features set out in Table 6.3 above (including effects from 'temporary developments'*); and Farm holdings - more than 20% of all land farmed
	Beneficial	Potential for permanent improvement in one or more soil functions or soil volumes due to remediation or restoration over an area of more than 20 ha, or gain in soil-related features set out in Table 6.3 (including effects from 'temporary developments'*).
*Temporary developments can result in a permanent impact if resulting disturbance or land use change causes permanent damage to soil		

Scale of Effect Criteria

6.7.5 The significance of the predicted impacts, which may be Beneficial (positive) or Adverse (negative), on soil and agricultural land quality can be assessed as either 'Minor', 'Moderate' or 'Major' according to the sensitivity of the receptor magnitude of the impact, as set out in the impact assessment matrix given as Table 6.5. This follows the approach of IEMA's Guide: '*A New Perspective on Land and Soil in EIA*'[10].

Table 6-5: Scale of Effects Matrix			
Magnitude of Impact	**Sensitivity/Value of Receptor**		
	Low	**Medium**	**High**
Low	Negligible	Negligible - Minor	Minor
Medium	Negligible - Minor	Minor	Moderate
High	Minor	Moderate	Major

6.7.6 In accordance with ES Volume 1 Chapter 2: EIA Process and ES Methodology , moderate and major effects are considered significant in EIA terms (shown in grey).

6.7.7 In determining the significance of reported effects, consideration has been given to the type of effect i.e., direct, indirect or secondary, the geographical extent of the effect and permeance of the effect i.e., temporary or permanent.

6.7.8 Duration of effect has been described as short, medium or long-term, in accordance with the criteria set out in ES Volume 1 Chapter 2: EIA Process and ES Methodology

Nature of Effect Criteria

6.7.9 The nature of the effect has been described as either adverse, neutral or beneficial as follows:

- **Beneficial** – An advantageous effect to a receptor;
- **Neutral** – An effect that on balance, is neither beneficial nor adverse to a receptor or equally beneficial and adverse; or
- **Adverse** – A detrimental effect to a receptor.

6.8 Assumptions and Limitations

6.8.1 It has been assumed that agricultural land proposed for use as green infrastructure (e.g., public open space, nature conservation, allotments) is a reversible change of use, and could be restored for use in agricultural production using standard agricultural cultivation techniques by future generations, if required. For the purpose of this assessment, only agricultural land proposed for built is considered to be a permanent change of use, i.e., sealing of agricultural land. The assessment has applied a reasonable worst-case scenario to the extent of development in these zones.

6.8.2 A Framework Soil Management Plan (FSMP) is provided in ES Volume 2 Technical Appendix 6.2. This is reasonably assessed as embedded mitigation to safeguard soil resources for use on Site in a sustainable manner as the measures follow standard best practice guidance set out under 'Guidance' in Section 6.2 above.

6.8.3 The principles set out in the FSMP would be developed into a more detailed Soil Management Plan (SMP). The SMP would form part of detailed construction environmental plans (CEMPs). This approach follows guidance in Defra's '*Code of Practice for the Sustainable Use of Soil on Construction Sites*' (2009), British Society of Soil Science (2022). '*Working with Soil Guidance Note Document 3: Benefitting from Soil Management in Development and Construction*'; this also follows Natural England's EIA scoping guidance set out in Table 6.1.

6.9 Baseline Conditions

Existing Baseline

6.9.1 Extensive ALC surveys have been undertaken in this location (see ES Volume 2 Technical Appendix 6.1). MAFF has determined that agricultural land covered by a Post 1988 ALC survey within the Site (See ES Volume 2 Technical Appendix 6.1) proposed for built development is Subgrade 3b, i.e., there is no impact to Best and Most Versatile (BMV) agricultural land. From Figure 6.1 (below), and the indicative phasing strategy (ES Chapter 5: Demolition and Construction Description), land not covered by the MAFF ALC survey is either off-Site, not required for built/irreversible development or, as described below, (i) has a similar climate, (ii) is underlain by similar geology, (iii) and is covered by similar soils as the predominate Subgrade 3b land (see paragraph 6.9.5 also).

6.9.2 The National Soil Map[25] shows that the land within the boundary of the Proposed Development is covered entirely by soils in the Wickham 1 Association. As described by the Soil Survey of England and Wales[26], this association, which is confined to Kent, Surrey and Sussex, is the most extensive in the Low Weald where intermittent thin drift rests on Atherfield and Weald Clays. The main soils in the Wickham 1 Association are grey coloured with prominent ochreous mottles in the subsoil. The topsoil is fine silty or fine loamy over clayey subsoil, i.e., typical stagnogleys. They are wet for long periods over the winter (Wetness Class IV) where undrained. Where the outfall/gradient of the land allows, under-drainage can help lower the Wetness Class to III. The Association includes some clayey Denchworth and Dale soils, i.e., pelo-stagnogleys, on moderate slopes, often associated with thin bands of limestone. The Association also includes some Oxpasture soils, which are similar to Wickham but less mottled, i.e., stagnogleyic argillic brown earths. Soils with a heavy texture can be restricted in terms of their productivity, and hence ALC grade, due to a soil-wetness limitation.

6.9.3 Provisional Agricultural Land Classification (ALC) (Pre 1988)[27] indicates a likelihood of Grade 3 (not differentiated between Subgrades 3a or 3b) and Grade 4 land. These provisional ALC maps are intended for strategic land use planning. A definitive ALC grading is only possible following a Post 1988 ALC survey. Grade 4 land is not shown on Post 1988 mapping.

6.9.4 A MAFF Post-1988 ALC survey has determined that there is approximately 90 hectares (ha) of agricultural land within the boundary of the Site which is Subgrade 3b; this is outside of the NPPF (2024) definition of BMV land (which comprises ALC Grade 1, Grade 2 and Subgrade 3a). Subgrade 3b agricultural land is a receptor of medium sensitivity. MAFF has not determined any BMV agricultural land at the Site.

[25] Cranfield University (2023) Soil site report, Soil Report for location 524313E, 137444N, 3km x 3km, Cranfield University.
[26] Cranfield University 2023. *The Soils Guide.* Available: www.landis.org.uk. Cranfield University, UK. Available online https://www.landis.org.uk/soilsguide/mapunit.cfm?mu=71105&sorttype_association=map_unit_name Last accessed February 2025
[27] Agricultural Land Classification – Provisional (England) available online @ https://magic.defra.gov.uk/MagicMap.html Last accessed in February 2025

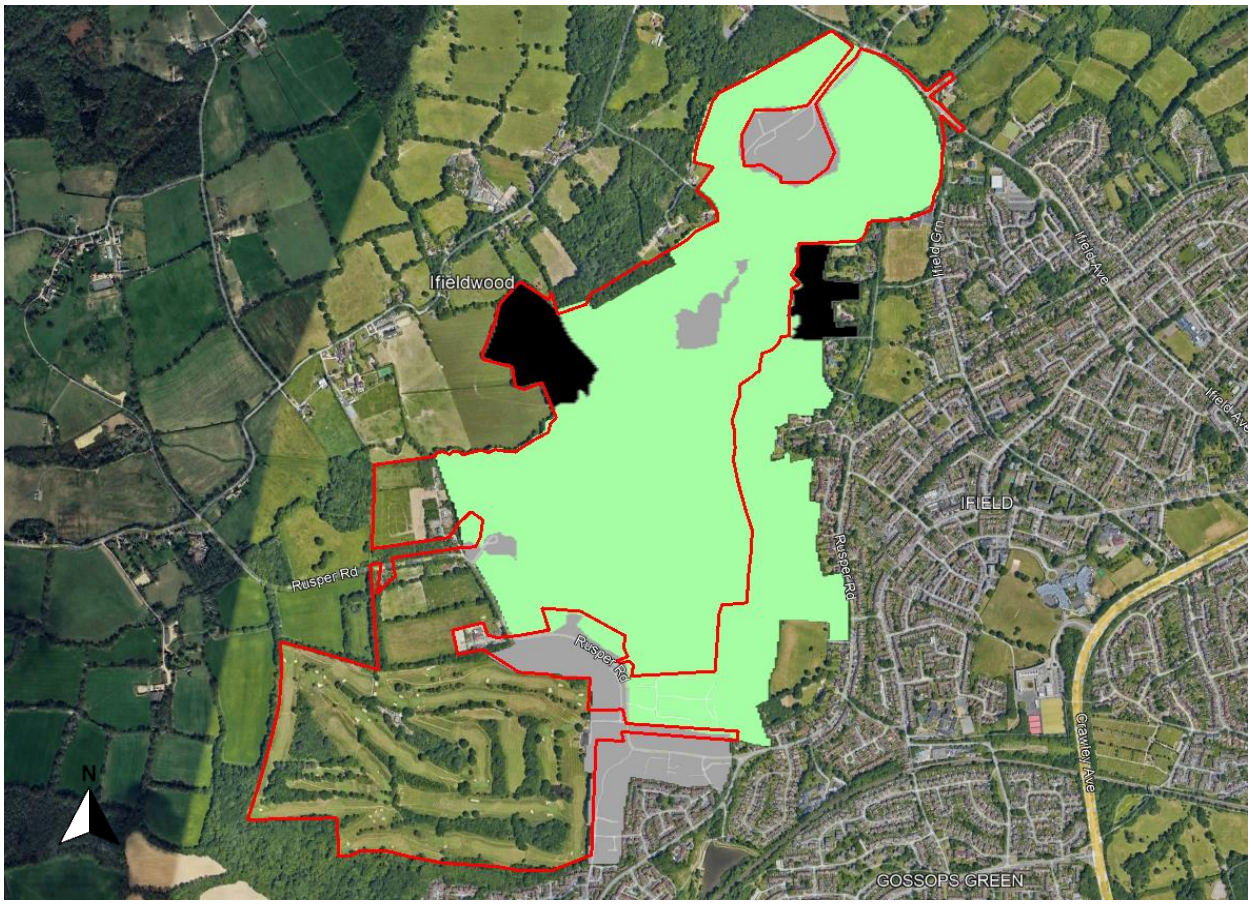

Figure 6.1: MAFF Post 1988 ALC Information to the West of Ifield. Site Boundary is shown in red. The figure shows areas of Subgrade 3b land (shown in green), other Non-Agricultural Land (shown in grey), and non-surveyed areas (shown in black).

6.9.5 Areas not covered by the MAFF Post-1988 ALC survey include a golf course in the south-west, i.e., approximately 48ha. This is classified as 'non-agricultural' in ALC terms. There are smaller areas of agricultural land in the west of the Proposed Development, i.e., approximately 12ha, which are not covered by the MAFF Post 1988 ALC survey. However, it is either not required, not required for built/irreversible development, or it has the same climate and consist of the same soils as the remainder of the Site, i.e., Wickham 1 Association. It is therefore reasonable to assume the quality of the agricultural land will be similar, i.e., Subgrade 3b. The remainder of the land within the boundary of the Proposed Development is classified as 'non-agricultural', i.e., buildings, roads, woodland, and waterbodies/courses, as summarised in Table 6.6.

Table 6-6: Post 1988 Agricultural Land Classification: West of Ifield, West Sussex

ALC grade/subgrade (receptor sensitivity)	MAFF Post 1988 ALC grading within the Site (ha)	Predicted ALC of areas not surveyed by MAFF	Total Area (Ha)	Total Area (%)
Grade 1	0	0	0	0
Grade 2	0	0	0	0
Subgrade 3a	0	0	0	0
Subgrade 3b (medium sensitivity, see Table 6-3)	90.0	12.0	102.0	59.5
Grade 4	0	0	0	0
Grade 5	0	0	0	0

Table 6-6: Post 1988 Agricultural Land Classification: West of Ifield, West Sussex				
Non-agricultural, e.g., golf course, buildings, roads, woodland, waterbodies/courses (low sensitivity)	12.0	57.3	69.3	40.5
Total	**102.0**	**69.3**	**171.3**	**100**

6.9.6 The land at the Site is either owned or under option by the Applicant. Agricultural land within the Site is currently farmed by an agricultural tenant. The agricultural land is used for producing combinable crops, which is assessed as being a farm type in which there is a degree of flexibility in the normal course of operations and is therefore an agricultural receptor of medium sensitivity.

6.9.7 Some of the agricultural land at the Site is in a 5-year Countryside Stewardship Scheme (Mid Tier) by the on-Site farm tenant. It is predicted the agreement will have ended prior to the agricultural land being required for the Proposed Development. Therefore, it is predicted that no agricultural land in an agri-environmental scheme would be adversely affected by the Proposed Development. Therefore, agri-environmental schemes are scoped out of the remainder of this assessment.

Future Baseline

Soil

6.9.8 Soil develops at the rate of approximately 1cm per 500 years and for practical purposes is regarded as a finite resource. It is predicted that the quality and quantity of soil would not change significantly from current baseline conditions for the mid to long term, i.e., to 2050.

Agricultural Land Quality

6.9.9 It is predicted the quality of agricultural land (i.e., current ALC grading) will remain broadly the same in the short to medium term. However, research has been undertaken to predict the impact of climate change on the capability of land for agriculture as defined by the Agricultural Land Classification[28]. Twelve UKCP09 climate change scenarios are investigated namely the medium, high and low emissions scenarios for 2020 (2010-2039), 2030 (2020-2049), 2050 (2040-2069) and 2080 (2070-2099) time periods.

6.9.10 Most of the significant effects of climate change are predicted to occur in the longer term, i.e., 2050 and 2080 time periods, when areas of the UK are likely to experience similar climatic conditions to those in present-day Mainland Europe. Therefore, for the purposes of this assessment, it is assumed that the baseline ALC grades determined on-Site in 2019 are unlikely to change significantly over the mid-term (i.e., to 2040) under natural conditions, where the land is undeveloped.

6.9.11 It is possible that farm tenancy agreements (e.g., annual grazing licence) could be entered on agricultural land at the Site in the future, but this depends on the outcome of the planning application for the Proposed Development, and a degree of flexibility in tenure and agricultural land use would be maintained in the near future.

Sensitive Receptors

6.9.12 The receptors identified as sensitive to the Proposed Development, and which have been 'scoped-in' to the assessment are summarised in Table 6-7.

Table 6-7: Summary of Sensitive Receptors	
Receptor	**Sensitivity**
Soil	Medium
Subgrade 3b agricultural land	Medium
Non-agricultural land, e.g., golf course, buildings, roads, waterbodies/courses	Low

[28] C.A. Keay, R.J.A. Jones, C. Procter, V. Chapman, I. Barrie, I. Nias, S. Smith, S. Astbury (2013), 'The Impact of climate change on the capability of land for agriculture as defined by the Agricultural Land Classification', Department for Environment, Food and Rural Affairs (Defra).

Table 6-7: Summary of Sensitive Receptors	
Farm holding (farm tenancy involving production of mainly combinable crops)	Medium

6.10 Assessment of Effects

Demolition and Construction Effects

Soil

6.10.1 The Proposed Development includes embedded mitigation to safeguard soil resources. This is in the form of a FSMP given as ES Volume 2 Technical Appendix 6.2. It is intended the FSMP would be developed into a more detailed Soil Management Plan (SMP) and included within a detailed CEMP as part of future reserved matters applications.

6.10.2 The aim of the FSMP is to maintain, and where possible improve, the quality and quantity of soil resources (i.e., topsoil and subsoil) at the Site in its current physical condition (e.g., soil depth, soil texture, soil structure, soil drainage status), chemical condition (e.g., pH level, nutrient status of available phosphorus, available potassium, available magnesium, total nitrogen, and potentially toxic elements (PTE)), and soil organic matter (SOM) content, to maintain soil functions during the construction phase.

6.10.3 The quality and quantity of soil resources (topsoil and subsoil – medium sensitivity) available for reuse at the Site (low magnitude – as impact is reversible) would be identified and safeguarded on Site as part of a SMP (included in a detailed CEMP). This follows best practice set out in Section 6.2. By protecting soil resources in this way, the significance of the effect of the Proposed Development on soil resources would be **negligible-minor (not significant)**.

Agricultural Land

6.10.4 There is no available mitigation for built development on agricultural land (i.e., sealing), as this is a permanent change of land use. However, agricultural land proposed for use as green infrastructure (e.g., public open space, nature conservation, allotments) is a reversible change of use, and could be restored for use in agricultural production using standard agricultural cultivation techniques by future generations.

6.10.5 As shown in the indicative phasing strategy (ES Chapter 5: Demolition and Construction Description), in the worst case, at the end of all development stages the Proposed Development would involve constructing built development on approximately 40.2ha (high magnitude) of agricultural land in ALC Subgrade 3b (medium sensitivity) during the construction phase. The significance of the adverse effect of the Proposed Development on Subgrade 3b agricultural land is assessed as being **moderate (significant)**. However, regarding paragraph 187 of the NPPF (2024), the Subgrade 3b agricultural land required for constructing the Proposed Development is not in the Best and Most Versatile (BMV) category and thus represents the poorest land available in terms of paragraph 188 (and footnote 65) of the NPPF (2024).

6.10.6 Of the approximately 40.2ha of agricultural land proposed for built development, the indicative phasing strategy (ES Chapter 5: Demolition and Construction Description) illustrates the land could be required in stages as follows:

- **Phase 1:** This phase involves the construction of a secondary school on an existing golf-course (i.e., non-agricultural land) and no agricultural land is required for development during this phase. The significance of the effect of Phase 1 alone on agricultural land is assessed as being negligible adverse (not significant);
- **Phase 2:** This indicative phase involves the construction of 1249 homes and associated infrastructure mainly on the existing golf-course (i.e., non-agricultural land), but will require approximately 7.7ha of Subgrade 3b adjacent to the north of the golf course. The significance of the effect of Phase 2 alone on agricultural land is assessed as being minor adverse (not significant);
- **Phase 3:** This indicative phase involves the construction of 713 homes and associated infrastructure mainly on the existing golf-course (i.e., non-agricultural land), but will require approximately 7.2ha of

Subgrade 3b. The significance of the effect of Phase 3 alone on agricultural land is assessed as being minor adverse (not significant);

- **Phase 4:** This indicative phase involves the construction of 764 homes and associated infrastructure mainly on approximately 18.6ha of Subgrade 3b. The significance of the effect of Phase 4 alone on agricultural land is assessed as minor adverse (not significant); and
- **Phase 5:** This indicative phase involves the construction of 274 homes and associated infrastructure mainly on approximately 6.7ha of Subgrade 3b. The significance of the effect of Phase 5 alone on agricultural land is assessed as minor adverse (not significant).

6.10.7 The remainder of the agricultural land in Subgrade 3b, i.e., approximately 49.8ha is proposed for use as 'Natural or Semi-Natural Open Space'. This is assessed as being a potentially reversible change of land-use (low, adverse magnitude) on Subgrade 3b agricultural land (medium sensitivity). The significance of this adverse effect is assessed as being negligible - minor (not significant).

Agricultural Holdings

6.10.8 The agricultural tenancy could be terminated under the conditions of the tenancy agreement whether or not the Proposed Development proceeds or not. Therefore, the magnitude of the impact of the Proposed Development on agricultural holding is assessed as being low. The significance of this adverse effect is assessed as being **negligible** - minor **(not significant)**.

Completed Development Effects

6.10.9 This has been scoped out as there are no predicted significant residual effects on soil, agricultural land, or agricultural holdings once the Proposed Development is constructed.

6.11 Assessment of Residual Effects

Demolition and Construction Stage

Soil

6.11.1 The quality and quantity of soil resources (topsoil and subsoil – medium sensitivity) available for reuse at the Site (low magnitude – as impact is reversible) would be identified and safeguarded on Site as part of a SMP and included within a detailed CEMP as part of future reserved matters applications. This follows best practice set out in Section 6.2. By protecting soil resources in this way, the significance of the residual effect of the Proposed Development on soil resources would be **negligible - minor (not significant)**.

Agricultural Land

6.11.2 At the end of all development phases the Proposed Development would involve constructing built development on approximately 40.2 ha (high magnitude) of agricultural land in ALC Subgrade 3b (medium sensitivity) during the construction phase. The significance of the residual, adverse effect of the Proposed Development on Subgrade 3b agricultural land is assessed as being **moderate (significant)**.

Farm Holdings

6.11.3 The significance of the residual adverse effect of the Proposed Development on agricultural holdings is assessed as being **negligible - minor (not significant)**.

Completed Development Stage

6.11.4 There are no predicted significant residual effects on soil or agricultural land or soil once the Proposed Development is constructed.

6.12 Summary of Residual Effects

6.12.1 Table 6-8 provides a tabulated summary of the outcomes of the soil and agriculture assessment of the Proposed Development.

Table 6-8: Summary of Residual Soil and Agriculture Effects

Receptor	Description of Residual Effect	Additional Mitigation	Scale and Significance of Residual Effect **	Nature of Residual Effect*				
				+ -	D I	P T	R IR	St Mt Lt
Demolition and Construction								
Soil Resources	Reuse of soils on Site.	None Required. Soil quality and quantity would be safeguarded by successful implementation of a SMP as part of the detailed CEMP included within future reserved matters applications	Negligible - Minor (not significant)	-	D	P	R	Lt
Subgrade 3b agricultural land	Change of land use/soil function from agriculture to a platform for development (sealing)	None Required	Moderate (significant)	-	D	P	IR	Lt
Farm Holdings	Cessation of farm tenancy prior to commencement of construction	None	Negligible - Minor (not significant)	-	D	P	IR	Lt

Notes:

* - = Adverse/ + = Beneficial/ +/- Neutral; D = Direct/ I = Indirect; P = Permanent/ T = Temporary; R=Reversible/ IR= Irreversible; St- Short term/ Mt –Medium term/ Lt –Long term.

**Negligible/Minor/Moderate/Major

6.13 Cumulative Effects

Intra-Project Effects

6.13.1 As explained in Chapter 2: EIA Process and ES Methodology, intra-project cumulative effects are discussed in Chapter 17.

Cumulative Effects

6.13.2 As explained in ES Volume 1 Chapter 2: EIA Process and ES Methodology, intra-project cumulative effects are discussed in ES Volume 1 Chapter 16: Cumulative Effects Inter-Project Effects

Demolition and Construction Cumulative Effects

6.13.3 Table 6-9 provides a summary of the likely cumulative effects resulting from the Proposed Development and the cumulative developments.

Table 6-9: Inter-Project Cumulative Effects

Cumulative Development	Demolition and Construction		Completed Development	
	Cumulative Effects Likely?	Reason	Cumulative Effects Likely?	Reason
HDC (DC/16/1677)	Yes	The committed development will result in the loss of agricultural land.	Yes	The scale (area) of agricultural land affected by the cumulative development in combination with the Proposed Development (assumed to be high magnitude) has been assumed to be of a moderate/minor magnitude, as

Table 6-9: Inter-Project Cumulative Effects				
Cumulative Development	Demolition and Construction		Completed Development	
	Cumulative Effects Likely?	Reason	Cumulative Effects Likely?	Reason
				cumulative schemes (within 5km) involve Subgrade 3b (medium sensitivity) and/or Grade 4 (low sensitivity) land from ALC information online.
HDC (EIA/24/0006)	As above	As above	As above	As above
CBC (CR/2022/0055/FUL)	As above	As above	As above	As above
CBC (CR/2021/0355/OUT)	As above	As above	As above	As above
CBC (CR/2020/0192/RG3)	As above	As above	As above	As above

6.13.4 The significance of the adverse effect of constructing the committed developments in combination with the Proposed Development (i.e., impact of high magnitude) on agricultural land (i.e., assume medium sensitivity receptor Subgrade 3b which is the predominant ALC grade in the area) is assessed as being **moderate (significant).**

Completed Development Cumulative Effects

6.13.5 It is predicted there would be no further significant adverse effects on soil and agriculture once the committed developments and the Proposed Development are constructed.

6.14 Summary of Assessment

Background

6.14.1 This chapter has detailed the potential soil and agriculture effects due to the construction and completed development stages of the Proposed Development. The assessment of construction and completed development stages has been undertaken taking into account the relevant national and local guidance and regulations.

Demolition and Construction Effects

6.14.2 The quality and quantity of soil resources (topsoil and subsoil) available for reuse at the Site would be identified and safeguarded on Site as part of a SMP and included within a detailed CEMP as part of future reserved matters applications. This follows best practice guidance. By protecting soil resources in this way, the significance of the residual effect of the Proposed Development on soil resources would be negligible-minor and as such would not give rise to significant effects on soil.

6.14.3 During demolition and construction works, there is a potential to permanently change the land use of approximately 40.2ha of Subgrade 3b agricultural land from agricultural production to a platform for built development, i.e., sealing.

6.14.4 Overall, it is considered that the demolition of the existing Site and construction of the Proposed Development would result in a moderate effect on Subgrade 3b agricultural land, and as such would give rise to significant effects on agriculture. However, regarding paragraph 187 of the NPPF (2024), the Subgrade 3b agricultural land required for constructing the Proposed Development is not in the Best and Most Versatile (BMV) category and thus represents the poorest land available in terms of paragraph 188 (and footnote 65) of the NPPF (2024).

6.14.5 An agricultural tenancy could be terminated in accordance with the terms of the agreement in any event.

Completed Development Effects

6.14.6 There are no predicted significant residual effects on soil or agricultural land or soil once the Proposed Development is constructed.

Cumulative Effects

6.14.7 The significance of the adverse effect of constructing the committed developments in combination with the Proposed Development is assessed as being moderate and, as such, would give rise to significant effects on agriculture.