

Growing Baldock

Environmental Statement Volume 1: Text
Chapter 14: Waste



October 2025

Urban&Civic

Hertfordshire



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14.1 INTRODUCTION

Introduction

- 14.1.1 This chapter of the Environmental Statement (ES) has been prepared by RPS and assesses the potential waste effects of the Proposed Development on waste receptors during construction and operation of the project.
- 14.1.2 This chapter has been prepared by Clare Russell, an Associate Director at RPS with over 25 years' experience in environmental consultancy specialising in Environmental Impact Assessment and waste assessments. The Associate Director holds a MSc in Land Resource Management, a BSc (Hons) in Agriculture and the Environment and is Registered Practitioner with ISEP (formerly IEMA). The Associate Director has also prepared waste chapters and waste management plans for a variety of projects including nationally significant infrastructure projects.
- 14.1.3 The chapter has been prepared in accordance with the approach set out in the Scoping Report (April 2024). It considers the potential effects on the existing waste management infrastructure within Hertfordshire.

Project Overview

- 14.1.4 The Site is located to the north and east of Baldock, Hertfordshire and falls within the administrative area of North Hertfordshire. The Site is currently predominantly in agricultural use. Some existing buildings present on the Site are in agricultural or residential use.
- 14.1.5 The Site comprises the following housing and employment land allocations with the North Hertfordshire Local Plan (2011-2031):
- Site BA1: land east of North Road and north of the railway line;
 - Site BA10: land between the railway line and Royston Road;
 - Site BA2: land south of Clothall Road;
 - Site BA3: land west of the A505;
 - Walls Field;
 - Urban Open Land; and
 - Land west of North Road.
- 14.1.6 The description of the Proposed Development comprises:

Outline planning application with all matters reserved except for means of highway access into the development from the A505/Royston Road, North Road and Clothall Road for: up to 3,200 homes, up to 16ha of employment, waste and leisure infrastructure, a mixed use local centre, up to 1 secondary school, up to 2 x primary schools, up to 1 SEND school, health hub, green infrastructure (including parks, formal sports provision, play, habitat areas, informal open space and structural planting), internal street network,

access junctions and railway crossing, public transport infrastructure, pedestrian/cycle network (including PRoW diversions, active travel routes, mobility hubs and crossing of the railway), utilities and drainage infrastructure (including diversions of existing and provision of new infrastructure, pumping stations, sustainable drainage, primary substations, rising main/strategic sewer and renewable energy infrastructure), ground remodelling/earthworks and any necessary demolitions.

- 14.1.7 Construction is anticipated to commence in 2027 with the first completions (in BA2) in 2028. The Proposed Development completion date is envisaged to be approximately 2043, with an average annual housing completion rate of 200 dwellings per annum.

14.2 RELEVANT POLICY

14.2.1 This section sets out the national and local policy relating to the management of waste.

National Policy

National Planning Policy Framework

14.2.2 The National Planning Policy Framework (NPPF) was published in 2012 and most recently updated in 2024 (Department for Levelling Up, Housing and Communities, 2024). The NPPF sets out the Government's planning policies for England.

14.2.3 One of the overarching objectives of sustainable development (as described in the NPPF) is to:

"to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy" (paragraph 8(c) of the NPPF).

14.2.4 In addition, with respect to materials and minerals waste, the NPPF states:

"so far as practicable, take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials, whilst aiming to source minerals supplies indigenously" (paragraph 223(b) of the NPPF).

14.2.5 The contents of the NPPF are not intended to inform policy relating to waste or decisions relating to waste development, however the NPPF should be read in conjunction with the Government's waste planning policy which is summarised below.

National Planning Policy for Waste (2014)

14.2.6 The National Planning Policy for Waste (Department for Communities and Local Government (now Ministry for Housing, Communities and Local Government), 2014) provides guidance to local planning authorities when determining applications for non-waste related development. Local planning authorities are required to ensure that the "likely impact of proposed non-waste related development on existing waste management facilities and on sites and areas allocated for waste management, is acceptable and does not prejudice the implementation of the waste hierarchy and/or the efficient operation of such facilities".

14.2.7 Local planning authorities are also recommended to consider the following factors during determination:

- the likely impact of proposed, non-waste related development on existing waste management facilities, and on sites and areas allocated for waste management,

is acceptable and does not prejudice the implementation of the waste hierarchy and/or the efficient operation of such facilities

- new, non-waste development makes sufficient provision for waste management and promotes good design with the integration of waste management within the rest of the development (for example, providing adequate storage facilities); and
- the handling of waste arising from the construction and operation of the development maximises reuse and recovery opportunities and minimises off-site disposal.

The Waste Prevention Programme for England: Maximising Resources, Minimising Waste (2023)

14.2.8 The waste prevention programme follows on from the Resources and Waste Strategy (2018) see below. The programme sets out the priorities to manage resources and waste in accordance with the top layers of the waste hierarchy i.e. prevention and re-use. The programme will follow a policy approach encompassing the following themes:

- Designing out waste: e.g. consumer information requirements
- Systems and services: e.g. including collection and take-back services to encourage reuse
- Data and information: including materials databases and product passports to support improved outcomes e.g. higher quality recycling.

14.2.9 The waste programme is being targeted at seven key sectors which have been selected on the basis of their waste arisings or known carbon emissions. One of the sectors is construction.

Waste Management Plan for England (2021)

14.2.10 The Waste Management Plan for England (Defra, 2021) fulfils the requirements of the Waste (England and Wales) Regulations 2011 for the waste management plan to be reviewed every six years. It provides an analysis of the current waste management situation in England and evaluates how it will support the implementation of the objectives and provisions of the Waste (England and Wales) Regulations 2011. The Waste Management Plan for England also provides an overview of the type, quantity and source of waste generated within England; existing waste collection schemes and major disposal and recovery installations; an assessment of the need for new collection schemes; and general waste management policies. The Waste Management Plan for England includes recent changes to waste management plan requirements which have been made by the Waste (Circular Economy) (Amendment) Regulations 2020 where appropriate.

Green Future: Our 25 Year Plan to Improve the Environment (2018)

14.2.11 Published in 2018, the 25-year plan sets out the government goals for improving the environment within a generation. It details how the government will work with communities and businesses to do this. The following policies are relevant:

- Make sure that resources are used more efficiently and kept in use for longer to minimise waste and reduce its environmental impacts by promoting reuse, remanufacturing and recycling.
- Work towards eliminating all avoidable waste by 2050 and all avoidable plastic waste by the end of 2042.
- Reducing food supply chain emissions and waste.
- Reducing litter and littering.
- Improving management of residual waste.

Our Waste, Our Resources: A Strategy for England (2018)

14.2.12 The Government published 'Our Waste, Our Resources: A Strategy for England' (the Resources and Waste Strategy (RWS)) in December 2018 (Defra, 2018b). It builds on the commitments in the 25 Year Plan to Improve the Environment and sets out the policies that will help achieve the vision of moving to a circular economy. The RWS is underpinned by natural capital thinking and is guided by two overarching objectives:

- to maximise the value of resource use; and
- to minimise waste and its impact on the environment.

14.2.13 The RWS sets out the Government's priorities for preserving material resources, minimising waste, promoting resource efficiency and moving towards a circular economy. The priorities provide a useful insight into how organisations will be required to reduce and manage their waste in the future and to follow a more considered approach to procurement.

Local Policy

North Hertfordshire Local Plan (2022)

14.2.14 Policy D1 of the North Hertfordshire Local Plan (1) details that development proposals should

Take all reasonable opportunities, consistent with the nature and scale of the scheme, to: [...] iii) reduce energy consumption and waste;

Hertfordshire Waste Development Framework 2011 – 2026 (2012)

14.2.15 The current adopted Waste Local Plan is known as the Waste Core Strategy and Development Management Policies Development Plan Document (2). Key policies from Waste Development Framework are listed in **Table 14.1** below.

Table 14.1 – Hertfordshire Waste Development Framework (2012)

Policy	Detail
Policy 1: Strategy for the Provision of Waste Management Facilities	Any proposed new development within the county will be required to make appropriate provision for managing the waste arising from that development.
Policy 2: Waste Prevention and Reduction	Hertfordshire residents and businesses will be encouraged to reduce waste in accordance with the Hertfordshire Joint Municipal Waste Management Strategy. The Waste Planning Authority will achieve this by: 1. raising awareness amongst the general public on measures to prevent and where necessary further reduce waste and encouraging waste separation and recycling at source
Policy 12: Sustainable Design, Construction and Demolition	Where appropriate new and existing development, including waste management facilities, must contribute to resource efficiency, the reduction of carbon emissions and the effective management of climate risk. As a minimum, proposals will be required to address the principles of sustainability by incorporating the following: i) construction and demolition methods that minimise waste generation and re-use/recycle materials and buildings, as far as practicable on site; ii) design principles and construction methods that minimise the use of primary aggregates, use of water are consistent with the energy hierarchy and encourage the use of high quality building materials made from recycled and secondary sources; iii) good and innovative design with layout principles that allow for the effective sorting, recycling and composting where appropriate. Completed Site Waste Management Plans should support relevant developments to include details of the management of waste at construction and demolition sites and should be passed onto the Waste Planning Authority to collate the data

Hertfordshire Minerals and Waste Local Plan 2040: Draft Plan (2022)

- 14.2.16 Hertfordshire County Council merged mineral extraction and waste management strategies into a single Minerals and Waste Local Plan with the draft published in July 2022 (3) for consultation.

Table 14.2 – Hertfordshire Minerals and Waste Local Plan 2040: Draft Plan (2022)

Policy	Detail
Policy 3: Meeting Waste Management Needs	Development proposals which would increase waste management capacity will be supported in principle where they meet an identified need* and where they seek to move the management of waste up the waste hierarchy.

Policy 4: Site Safeguarding and Consultation Areas	Hertfordshire County Council will safeguard existing and future minerals and waste management sites.
Policy 10: Secondary and Recycled Materials	The county council will support the increased use of secondary and recycled materials in order to reduce reliance on land-won aggregates and maximise the amount of inert waste diverted from landfill. Inert wastes arising from construction, demolition and excavation activities that cannot be re-used or recycled on-site should, as a first priority, be directed to the restoration of mineral workings (in accordance with an approved restoration scheme), to engineering works, or to derelict land requiring fill as part of re-restoration to a beneficial after-use (in accordance with an approved scheme). Proposals for the use of inert waste must identify the source of the waste and as a minimum, proposals must clearly demonstrate that they: a) will not undermine the availability of such waste for use in mineral restoration schemes; and b) will use the appropriate amount of material necessary
Policy 11: Sustainable Design and Resource Efficiency	All development proposals involving the management of wastes must clearly demonstrate how the development ensures the most efficient use of resources through: a) construction and demolition methods that minimise waste generation and facilitate the re-use/recycling of materials and buildings, as far as practicable on site;

Legislation

European Waste Directive Framework (2008/98/EU)

14.2.17 The definition of waste is important because the classification of substances as a waste is the basis for the application of regulatory controls to protect the environment and human health.

14.2.18 For the purpose of this chapter, 'waste' has been defined in accordance with Article 3(1) of the revised European Waste Framework Directive (2008/98/EU), which states that waste is:

'Any substance or object which the holder discards or intends to discard or is required to discard'.

14.2.19 'Discard' includes the recovery and recycling of a substance as well as its disposal in order to ensure that recovery operations are carried out in a way which protects the environment and human health. The decision on whether something is discarded must take into account all of the circumstances (e.g. the nature of the material, how it was produced and how it will be used) and have regard to the aims of the Waste Framework Directive, which are:

'the protection of human health and the environment against harmful effects caused by the collection, transport, treatment, storage and tipping of waste.'

14.2.20 This definition is still applicable in the UK and was not amended as part of the Waste (Miscellaneous Amendments) (EU Exit) Regulations 2019.

14.2.21 The UK legislative framework for the management of wastes comprises the following:

- Environment Act 2021;
- Waste (Circular Economy) (Amendment) Regulations 2020;
- Environmental Permitting (England and Wales) Regulations 2016;
- Waste (England and Wales) Regulations 2011;
- Waste Management (England and Wales) Regulations 2006;
- Hazardous Waste (England and Wales) Regulations 2005;
- Environment Act 1995; and
- Environmental Protection Act 1990.

Environment Act 2021

14.2.22 The Environment Act 2021 (the 2021 Act) provides a legal framework for environmental governance and makes specific provision for the improvement of the environment. With regards to waste and resources, the 2021 Act provides the legislative framework needed to deliver on many of the commitments in 'Our Waste, Our Resources: A Strategy for England' (Defra, 2018) by introducing new powers and amending existing legislation such as the Environment Act 1995 and the Environmental Protection Act 1990. This includes extending producer responsibility to make producers pay for 100% of cost of disposal of products, starting with plastic packaging; a deposit Return Scheme for single use drinks containers; and obligations to be placed on producers in relation to the re-use, redistribution, recovery and recycling of products.

Waste (Circular Economy) (Amendment) Regulations 2020

14.2.23 The Waste (Circular Economy) (Amendment) Regulations 2020 amends legislation that transposed waste-related EU Directives (including the Waste Framework Directive 2008/98/EU) and makes the legislative changes required to transpose the 2020 Circular Economy Package (CEP) measures. The CEP identifies steps for the reduction of waste and establishes a long-term plan for waste management and recycling.

14.2.24 One of the CEP measures relates to preparing waste for reuse and recycling. It states that legislative changes and industry guidance will be implemented to:

- promote the selective demolition to enable the removal and safe handling of hazardous substances;
- facilitate the reuse and high-quality recycling by selective removal of materials;
- and

- ensure the establishment of sorting systems for construction and demolition waste for wood, mineral fractions, metal, glass, plastic and plaster.

14.2.25 The CEP also requires that records must be kept of the material and product quantities resulting from preparing for reuse, recycling or other recovery of hazardous waste. These records must also be made available to the Environment Agency through the electronic registry.

14.2.26 Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 and Waste Electrical and Electronic Equipment (Amendment) Regulations 2018

14.2.27 The WEEE Regulations 2013 apply to all Electrical and Electronic Equipment ('EEE') placed on the market in the UK covered by the scope of the regulations. Obligations are imposed on producers, distributors and consumers of EEE.

Waste (England and Wales) Regulations 2011 (as amended)

14.2.28 The framework of waste management legislation in the UK is currently shaped by the Waste (England and Wales) Regulations 2011. These regulations require all businesses and organisations that produce waste to take all reasonable measures to prevent waste, to apply the waste hierarchy when transferring waste using the definitions in Article 3 of Directive 2008/98/EC and include a declaration on their waste transfer notes or consignment notes to that effect. Standard Industry Classification (SIC) Codes (Companies House, 2018) of the waste producer will also be provided in the waste transfer note. The SIC is a system for classifying industries by a five-digit code.

14.2.29 The Waste (England and Wales) Regulations 2011 also require that any organisation which collects waste paper, metal, plastic or glass must do so using separate collections to facilitate or improve recovery of these materials and where it is technically, environmentally and economically practicable.

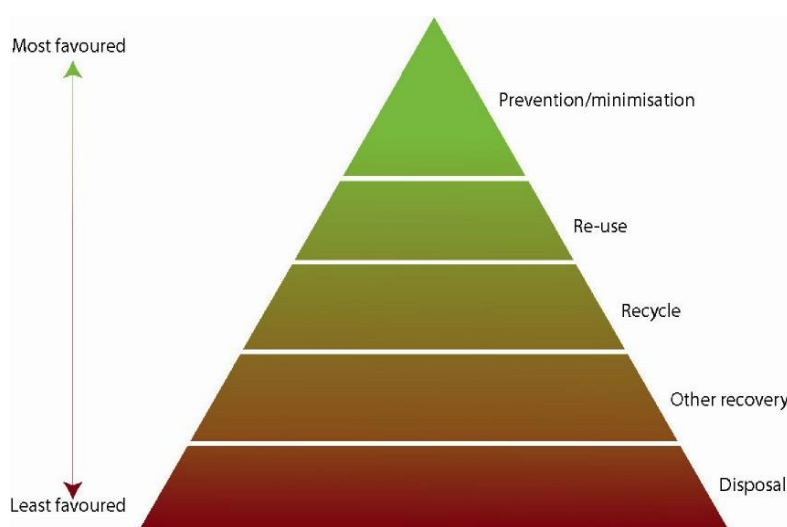
Hazardous Waste (England and Wales) Regulations 2005

14.2.30 The Hazardous Waste (England and Wales) Regulations 2005 set out the requirements for controlling and tracking the movement of hazardous waste and bans the mixing of different types of waste. Under the Regulations 'mixing' includes mixing of different categories of hazardous waste, non-hazardous wastes or any other substance or material.

Waste Hierarchy

14.2.31 The waste hierarchy ranks waste management options according to what is best for the environment. The hierarchy gives top place to waste prevention. When waste has been generated, priority is given to preparing it for re-use, then recycling, then recovery, and last of all disposal (for example, landfill), as shown in **Figure 14.1**. The waste hierarchy is a key element of sustainable waste management and following the hierarchy is a legal requirement of the Waste (England and Wales) Regulations 2011.

Figure 14.1 - Waste Hierarchy



14.2.32 The waste hierarchy stages are set out below (as defined in Article 3 of the Directive):

- 'Prevention' means measures taken before a substance, material or product has become waste that reduce:
 - the quantity of waste, including through re-use of products or the extension of the life span of products;
 - the adverse impacts of the generated waste on the environment and human health; or
 - the content of harmful substances in materials and products;
- 're-use' means any operation by which products or components that are not waste are used again for the same purpose for which they were conceived;
- 'preparing for re-use' means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other re-processing;
- 'recycling' means any operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials;
- 'recovery' means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy."

Guidance

Environment Agency

14.2.33 When assessing whether a material has been discarded, the Environment Agency considers a number of factors including:

- Burden;
- Certainty of use;
- Fit for purpose;
- Environmental harm;
- A specific purpose; and
- Reuse.

14.2.34 These factors form part of the Environment Agency's 'Check if your material is waste' online guidance (Environment Agency, 2022 (4)), which provides a practical guide about whether a material is a waste, is a by-product or meets 'end of waste' status. The Environment Agency also provides a 'definition of waste service' to advise if a material is a waste.

Defra

14.2.35 Defra has published guidance on how the waste hierarchy should be applied to a range of common wastes (Guidance on applying the Waste Hierarchy, Defra, 2011 (5)). It summarises the findings of current scientific research on the environmental impacts of various waste management options for a range of materials and products. The guidance states that for most materials the waste hierarchy ranking applies. However, the evidence suggests that for some materials, the preferred waste management option (i.e., with the lowest environmental impact) does not follow the waste hierarchy order.

CL:AIRE

14.2.36 This chapter also takes into account the definition of waste by Contaminated Land: Applications in Real Environments (CL:AIRE) 'Definition of Waste: Development Industry Code of Practice (CoP) (CL:AIRE, 2011 (6)). CL:AIRE is an independent body that promotes the sustainable remediation of contaminated land. The CoP provides a consistent and transparent process which enables the reuse of excavated materials on site or their movement between sites. It sets out good practice for the development industry to use when:

"Assessing on a site-specific basis whether excavated materials are classified as waste or not; and

Determining on a site-specific basis when excavated waste can cease to be waste for a particular use."

14.2.37 The Environment Agency will take the CoP into account when deciding whether to regard materials as a waste. If materials are dealt with in accordance with the CoP, the Environment Agency considers that those materials are unlikely to be waste if they are used for the purpose of 'land development'.

- 14.2.38 The CoP requires that a CL:AIRE Materials Management Plan (MMP) is prepared to demonstrate that the material will not harm human health or the environment. The MMP will be developed further as the Development moves towards the build stage. Regulatory authorities, including the Environment Agency, will be consulted to confirm that they have no objection to the use of the CL:AIRE Definition of Waste: Code of Practice, and that any risk assessments and remedial strategies have been agreed and any associated planning conditions or requirements discharged by such bodies.
- 14.2.39 The CL:AIRE MMPs will relate to non-hazardous excavated material, which will include:
- soil, both topsoil and subsoil, parent material and underlying geology;
 - ground based infrastructure that is capable of reuse within earthworks projects (e.g. road base, concrete floors);
 - made ground;
 - source segregated aggregate material arising from demolition activities, such as crushed brick and concrete, to be reused on the Site of production within earthworks projects or as a sub-base or drainage materials; and
 - stockpiled excavated materials that include the above.

BREEAM

- 14.2.40 BREEAM was first launched in 1990 and is the most widely used environmental assessment method for buildings. BREEAM New Construction Manual (2018)(7) is a performance-based assessment method and certification scheme for new buildings. Its primary aim is to mitigate the life cycle impacts of new buildings on the environment in a robust and cost-effective manner. This is achieved through measuring and evaluating the performance of a building against best practice using a number of criteria across a range of environmental issues. Performance is quantified using a credit system according to the measures implemented, which is ultimately expressed as a single certified BREEAM rating.

14.3 ASSESSMENT METHODOLOGY

Scope

- 14.3.1 The chapter considers the likely wastes that will be generated from the construction and operation of the Proposed Development and how wastes will be managed. In particular, the chapter considers the reduction in the capacity of existing and future waste management infrastructure arising from the generation of waste during the construction and operation of the Proposed Development. The chapter assumes that the Waste Transfer Station within the Proposed Development will form additional mitigation subject to it not being included in the full planning application.
- 14.3.2 Waste arising from the extraction, processing and manufacture of construction components and production has been scoped out of the EIA on the basis that such matters cannot be accurately predicted and assessed in the ES as they relate to procurement decisions.
- 14.3.3 The Study Area for the waste chapter comprises Hertfordshire and the identified existing waste management infrastructure.

Data Sources

- 14.3.4 The waste chapter has been prepared using desk-based information: no surveys have been undertaken.

Assessment Approach

- 14.3.5 The waste assessment has followed the methodology within ISEP's Guide to Materials and Waste in Environmental Impact Assessment (ISEP, 2020) (8).

Significance Criteria

- 14.3.6 The approach to determining the significance of effects is a two-stage process that involves defining the magnitude of the impact and the sensitivity of the receptor. This section describes the criteria that will be applied to assign values to the magnitude of potential impacts and the sensitivity of the receptors. The terms used to define magnitude and sensitivity are based on and have been adapted from those used in the ISEP guidance (ISEP, 2020).

Sensitivity Criteria

- 14.3.7 The ISEP Guidance (2020) (8) focuses on landfills; the sensitivity of these receptors relates to landfill void capacity in the absence of the Proposed Development as it represents the receptor's ability to respond to change. Landfill capacity is recognised as an unsustainable and increasingly scarce option for managing waste. The ISEP criteria (ISEP, 2020) (8) has been used to determine the sensitivity of landfill void capacity. Inert and non-hazardous landfills have been combined as the sensitivity criteria is the same.

Table 14.3 – Sensitivity of Inert and Non-hazardous Landfill Void Capacity

Sensitivity	Definition for inert and non-hazardous landfill void capacity
Very High	Across construction and operation, the baseline/future baseline (i.e. without development) of regional inert and non-hazardous landfill void capacity: is expected to reduce very considerably (by >10%); is expected to end during construction or operation or decommissioning. is already known to be unavailable; or would require new capacity or infrastructure to be put in place to meet forecast demand.
High	Across construction and operation, the baseline/future baseline (i.e. without development) of regional inert and non-hazardous landfill void capacity is: expected to reduce considerably: by >6-10% as a result of wastes forecast.
Medium	Across construction and operation, the baseline/future baseline (i.e. without development) of regional inert and non-hazardous landfill void capacity is: expected to reduce noticeably by 1-5% as a result of wastes forecast.
Low	Across construction and operation, the baseline/future baseline (i.e. without development) of regional inert and non-hazardous landfill void capacity is: expected to reduce minimally by <1% as a result of wastes forecast.
Negligible	Across construction and operation, the baseline/future baseline (i.e. without development) of regional inert and non-hazardous landfill void capacity is: expected to remain unchanged or is expected to increase through a committed change in capacity.

Table 14.4 – Sensitivity of Hazardous Landfill Void Capacity

Sensitivity	Definition for hazardous landfill void capacity
Very High	Across the construction and/or operation phases, the baseline/future baseline (i.e. without development) of regional (or where justified, national) hazardous landfill void capacity is expected to: reduce very considerably (by >1%); end during construction or operation; is already known to be unavailable; or would require new capacity or infrastructure to be put in place to meet forecast demand.
High	Across the construction and/or operation phases, the baseline/future baseline (i.e. without development) of regional (or where justified, national) hazardous landfill void capacity is expected to: reduce considerably: by 0.5-1% as a result of wastes forecast.
Medium	Across the construction and/or operation phases, the baseline/future baseline (i.e. without development) of regional (or where justified, national) hazardous landfill void capacity is expected to: reduce noticeably: by 0.1- 0.5% as a result of wastes forecast.

Sensitivity	Definition for hazardous landfill void capacity
Low	Across the construction and/or operation phases, the baseline/future baseline (i.e. without development) of regional (or where justified, national) hazardous landfill void capacity is expected to: reduce minimally: by < 0.1% as a result of wastes forecast.
Negligible	Across the construction and/or operation phases, the baseline/future baseline (i.e. without development) of regional (or where justified, national) hazardous landfill void capacity is expected to: remain unchanged, or is expected to increase through a committed change in capacity.

- 14.3.8 The sensitivity of waste receptors also takes into account the capacity of other waste management infrastructure for non-hazardous waste in the waste study area.

Magnitude of impact

- 14.3.9 The Landfill Diversion Method W2 in ISEP's guidance (2020) (8) has been used to determine the magnitude of impact. This approach is considered appropriate and proportionate to the outline stage of the Proposed Development and the absence of detailed parameters of each building.

Table 14.5 - Magnitude of Impact Inert and Non-hazardous Waste

Magnitude	Definition for inert and non-hazardous waste
Large	<30% of waste generated by the Proposed Development will be diverted from landfill
Moderate	30-59% of waste generated by the Proposed Development will be diverted from landfill
Small	60-89% of waste generated by the Proposed Development will be diverted from landfill
Negligible	90 -99% of waste generated by the Proposed Development will be diverted from landfill
No Change	100% of waste generated by the Proposed Development will be diverted from landfill

Table 14.6 - Magnitude of Impact for Hazardous Waste

Magnitude	Definition for hazardous waste
Large	<30% of hazardous waste generated by the Proposed Development will be diverted from landfill
Moderate	30-59% of hazardous waste generated by the Proposed Development will be diverted from landfill
Small	60-89% of hazardous waste generated by the Proposed Development will be diverted from landfill
Negligible	90 -99% of hazardous waste generated by the Proposed Development will be diverted from landfill
No Change	100% of hazardous waste generated by the Proposed Development will be diverted from landfill

- 14.3.10 The significance of the effect upon waste and resources will be determined by taking into account the sensitivity and the magnitude of the impact. The method to be employed for this assessment is presented in **Table 14.7**. Where a range of significance levels is presented, the final assessment for each effect will be based upon professional judgement.
- 14.3.11 In all cases, the evaluation of sensitivity, impact magnitude and significance of effect will be informed by professional judgement and is underpinned by narrative to explain the conclusions reached.
- 14.3.12 For the purpose of the assessment, any effects with a significance level of minor or less will not be considered significant in terms of the EIA Regulations.

Table 14.7 - Significance of Effects

Magnitude	Sensitivity				
	Very High	High	Medium	Low	Negligible
Large	Substantial	Major	Major	Moderate	Minor
Moderate	Major	Moderate or Major	Moderate	Minor	Negligible
Small	Moderate or Major	Minor or Moderate	Minor	Minor	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible
No Change	No change	No change	No change	No change	No change

- 14.3.13 Where the magnitude of impact is 'no change', no effect would arise. The definitions for significance of effect levels are described as follows:
- Substantial: Only adverse effects are normally assigned this level of significance. These effects are generally, but not exclusively, associated with sites or features of international importance that are likely to suffer a most damaging impact and loss of resource integrity. However, a major change in a site or feature of national importance may also enter this category.
 - Major: These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance that are likely to suffer a most damaging impact and loss of resource integrity. However, a major change in a site or feature of local importance may also enter this category. Effects upon human receptors may also be attributed this level of significance.
 - Moderate: These beneficial or adverse effects have the potential to be important and may influence the key decision-making process. The cumulative effects of such factors may influence decision-making if they lead to an increase in the overall adverse or beneficial effect on a particular resource or receptor.

- Minor: These beneficial or adverse effects are generally, but not exclusively, raised as local factors. They are unlikely to be critical in the decision-making process but are important in enhancing the subsequent design of the Project.
- Negligible: No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.
- No change: No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Uncertainties and Limitations

- 14.3.14 Information on the current and permitted landfill capacity and resource availability is taken from the 2024 Authority Monitoring Report (AMR) (Hertfordshire County Council, 2024) (9). There is no publicly available information on any changes to this permitted capacity during the operation of the project.

Flexible Land Use

- 14.3.15 The waste effects have been considered in relation to the parameters set out within the Parameter Plan (**Appendix 2.1**) and Development Specification (**Appendix 2.2**). This includes a flexible land use parcel on BA3, with three potential development options:
- Option 1 – Knights Templar expansion and relocation to BA3 - Relocation and expansion (up to 12FE) of Knights Templar school to BA3. BA3 to accommodate SEND school and secondary school;
 - Option 2 – Knights Templar expansion - Expansion of Knights Templar on existing site (up to 10FE). BA3 to accommodate SEND school and residential (c. 250 units); or
 - Option 3 – Additional secondary school on BA3 - Provision of additional secondary school (up to 5FE) on BA3. BA3 to accommodate SEND school, secondary school and residential (c.90 units).
- 14.3.16 The spatial extent and types of land uses on the parameter plan for BA3 has been considered for all options, with both education and residential uses considered.
- 14.3.17 The ES chapter is based on the current outline Proposed Development design and as such the detailed information relating to the likely types and quantities of waste is not yet available. This has informed the assessment methodology that could be employed.

14.4 BASELINE CONDITIONS

- 14.4.1 Information on the existing capacity and future capacity requirements of the waste management infrastructure and the availability of material resources was collected through a desktop review of existing studies and datasets. These are summarised in **Table 14.8**:

Table 14.8 - Data Sources

Title	Source	Year	Author
Hertfordshire Waste Development Framework 2011-2026 (2012)	Hertfordshire County Council (2012) (2)	2012	Hertfordshire County Council
Hertfordshire Minerals and Waste Local Plan 2040: Draft Plan (2022)	Hertfordshire County Council (2022) (3)	2022	Hertfordshire County Council
Hertfordshire Minerals & Waste Development Framework Authority Annual Monitoring Report	Hertfordshire County Council (2024) (9)	2024	Hertfordshire County Council
Capacity Gap Report	Hertfordshire County Council (2021) (10)	2021	Hertfordshire County Council
Remaining Landfill Capacity	UK Government (2025) (11)	2025	UK Government
UK Statistics on Waste	Defra (2024) (12)	2025	Defra

- 14.4.2 The baseline consists of:
- Landfill void capacity in the waste study area (for non-hazardous, inert and hazardous waste);
 - Capacity of other waste management infrastructure for non-hazardous waste in the waste study area; and
 - Forecasts for landfill capacity.
- 14.4.3 The most recent published data from Hertfordshire County Council, Environment Agency and other industry reports (as listed in **Table 14.7**) has been used to establish the quantitative baseline for Construction, Demolition and Excavation (CDE) and Commercial and Industrial (C&I) waste.
- 14.4.4 There are no designated sites relevant to waste located in the Study Area.
- 14.4.5 No site-specific surveys have been required to determine the baseline environment in relation to waste and resources. All information required to inform the baseline can be informed by desk-based sources.

The Current Baseline

- 14.4.6 The adopted Waste Development Framework for Hertfordshire comprises the Waste Core Strategy and Development Management Policies document. It was adopted in 2012 and is currently under review through the Minerals and Waste Local Plan. Revised targets and indicators were adopted in 2018 which replace those from the Waste Core Strategy. The targets are used to monitor the implementation of policies within the Waste Core Strategy and is recorded in the Authority's Monitoring Report (AMR), the most recent of which is 2023.
- 14.4.7 Hertfordshire Minerals and Waste Local Plan 2040 Draft Plan (Hertfordshire County Council, 2022) (3) is the current draft plan in place. The draft plan provides the framework for monitoring policies that control waste management in Hertfordshire for the plan period up to 2040. The draft plan has been developed to replace the Hertfordshire Waste Development Framework which was adopted in 2012 to cover the period 2011-2026. Therefore, the baseline has been informed by the Hertfordshire Minerals and Waste Draft Local Plan.

Waste Arisings*Existing Waste Arisings and Management of Waste**Local Authority Collected Waste*

- 14.4.8 Municipal waste is also referred to as Local Authority Collected Waste (LACW) and generally consists of household waste and any other wastes collected from Household Recycling Centres, commercial or industrial premises, and waste resulting from the clearance of fly-tipped materials and litter. Hertfordshire household waste accounts for 95% of municipal waste.
- 14.4.9 The Waste Collection Authority (WCA) for the Site is North Herts Council.
- 14.4.10 The Waste Needs Assessment (Hertfordshire County Council, 2024) (13) sets out the approximated waste arisings within Hertfordshire and identifies that the total LACW arisings generated in Hertfordshire in 2020 was approximately 0.541 million tonnes

CDE Waste

- 14.4.11 The Waste Needs Assessment (Hertfordshire County Council, 2024) (13) identifies that the total CDE waste generated in Hertfordshire in 2020 was approximately 1.982 million tonnes, down from 2.26 million tonnes in 2019.

C&I Waste

- 14.4.12 The Waste Needs Assessment (Hertfordshire County Council, 2024) (13) identifies that the total C&I waste generated in Hertfordshire in 2020 was approximately 0.497 million tonnes.

Hazardous Waste

- 14.4.13 The Waste Needs Assessment (Hertfordshire County Council, 2022) (14) sets out the approximated waste arisings within Hertfordshire County Council and identifies that the total hazardous waste generated in Hertfordshire in 2020 was approximately 0.039 million tonnes, down from 0.05 million tonnes in 2019.

Forecast Waste Generation

LACW

- 14.4.14 Forecasts of LACW consider the planned growth for total net dwellings in Hertfordshire. Waste generation as tonnes per dwelling per annum was taken at 1.05 tonnes per dwelling, calculated as the average over the last 3-years (2019-2021) The forecasts reported in the Waste Needs Assessment (Hertfordshire County Council, 2024) (13) for LACW waste is summarised below:

- 0.559 million tonnes (2025)
- 0.581 million tonnes (2030)
- 0.623 million tonnes (2040)

C&I

- 14.4.15 Forecasts of waste generation in Hertfordshire will vary over time as circumstances affecting the amount of waste produced and new information becomes available. The forecasts reported in the Waste Needs Assessment (Hertfordshire County Council, 2024) (13) for C&I waste is summarised below:

- 0.557 million tonnes (2025)
- 0.592 million tonnes (2030)
- 0.674 million tonnes (2040)

- 14.4.16 Future CDE waste arisings will be largely determined by the rate of new building work. The Waste Needs Assessment forecasts CDE waste arisings to have a high growth scenario as a result of the planned growth agenda for housing provision and urban regeneration proposed in the recently adopted and emerging District and Borough Local Plans in Hertfordshire.

- 14.4.17 The forecasts reported in the Waste Needs Assessment (Hertfordshire County Council, 2024) (13) for CDE waste is summarised below:

- 1.446 million tonnes (2025)
- 1.424 million tonnes (2030)
- 1.285 million tonnes (2040)

- 14.4.18 There are no targets for the management of hazardous waste and hazardous waste are generated from a wide array of uses and operations. Hazardous waste arising forecasts in the Waste Needs Assessment are 0.054 million tonnes in 2040.

Existing and Permitted Waste Management Capacity

14.4.19 The AMR (2024) (9) details the capacity gaps for various waste streams in Hertfordshire. As part of the Minerals and Waste Local Plan production, the Waste Planning Authority revised the waste capacity shortfalls further, through the production of an Addendum (Jan 2024) to the updated Waste Needs Assessment (July 2022) (14).

Table 14.9 - Existing Waste Management Facilities in Hertfordshire and Remaining Capacity

Site	Operator	Facility Category	Capacity (cubic metres)
Tyttenhanger Landfill Site	Tarmac Aggregates Limited	L05 - Inert Landfill	4,978,396
Southfield Wood Landfill Site	Water Hall (England) Ltd	L04 - Non Hazardous	0
NORTH HERTS LANDFILL	Biffa Waste Services Ltd	L02 - Non Hazardous Landfill With SNRHW cell	0
Westmill II Waste Management Facility	Biffa Waste Services Ltd	L04 - Non Hazardous	0
Hatfield Quarry (Cut Field)	Cemex U K Materials Ltd	L05 - Inert Landfill	20,000
Hatfield Aerodrome - Inert Landfill, Waste Treatment & Mining Waste Operations	Brett Aggregates Limited	L05 - Inert Landfill	1,559,250
Anstey Chalk Quarry	The Anstey Quarry Company Ltd	L05 - Inert Landfill	0
Panshanger Quarry	B P Mitchell (Haulage Contractors) Ltd	L05 - Inert Landfill	364,048
Stanboroughbury Quarry	Cemex U K Materials Limited	L05 - Inert Landfill	450,000
Bunkers Quarry Landfill Site	Water Hall (England) Ltd	L05 - Inert Landfill	0
Hoddeston Quarry Landfill	Ingrebourne Valley Limited	L05 - Inert Landfill	0
Great Westwood Landfill	Cemex U K Materials Ltd	L05 - Inert Landfill	0

14.4.20 The AMR 2024 identifies capacity gaps for the various waste streams in Hertfordshire. This is replicated below.

Table 14.10 - Hertfordshire AMR 2024 Identified Capacity Gaps

		2021	2025	2030	2035	2040
Preparing for re-use and recycling	Materials recycling (LAC, C&I)	0.391	0.370	0.291	0.210	0.187
	Composting (LAC, C&I)	-0.001	-0.025	-0.049	-0.073	-0.080

	Inert recycling (CD&E)	-0.037	0.019	0.001	0.000	0.021
Other Recovery	Treatment & energy recovery (LAC, C&I)	0.096	0.014	0.007	0.036	0.017
	Soil treatment (CD&E)	-0.013	0.004	0.02	0.003	0.005
	Inert recovery (CD&E)	0.287	0.493	0.270	-0.645	-0.589
	Hazardous recovery & treatment	0.052	0.021	0.049	0.047	0.044
Disposal	Non-hazardous (LAC, C&I, CD&E)	-0.515	-0.261	-0.103	-0.092	-0.076
	Hazardous incineration	-0.002	-0.001	-0.001	-0.001	-0.001
	Hazardous landfill	-0.003	-0.004	-0.004	-0.004	-0.004

Figures are in million tonnes (Mt) and are not cumulative. Negative figures denote an identified need. Source: Waste Needs Assessment Addendum January 2024.

Current Local Waste Management Collection Arrangements

14.4.21 To facilitate the recycling and recovery of waste, North Herts Council operates a kerbside collection of recyclable materials and non-recyclable materials. A recent shift to introduce a separate cardboard and paper bin collection was introduced on August 5, 2025, and as a result bins, excluding food waste are collected every three weeks.

14.4.22 North Herts Council collection for household waste is as follows:

- Cardboard and paper bin collected every three weeks (blue lidded wheelie bin);
- Mixed recycling collected every three weeks (black wheelie bin);
- Food waste collected weekly (brown collection container);
- Non-recyclable waste collected every three weeks (purple lidded wheelie bin); and
- Garden waste (brown lidded wheelie bin) paid service.

14.4.23 The materials that are included in the cardboard and paper recycling bin are:

- White paper and newsprint
- Magazines and leaflets
- Corrugated cardboard
- Cardboard packaging, cereal boxes and sleeves
- White and brown envelopes

14.4.24 The materials that are included in the mixed recycling bin are:

- Tins, cans and foil
- Glass jars and bottles
- Plastic bottles, tubs and trays
- Plastic bags and wrappings
- Cartons

The Projected Future Baseline

- 14.4.25 In the absence of the Proposed Development, waste will continue to be generated from the construction of new developments and the operation of existing economic activities. In its role as a Mineral and Waste Planning Authority (WPA), Hertfordshire County Council is required to ensure:
- Enough land is available to accommodate facilities for the treatment of all waste arising in the WPA area, or through export to suitable facilities in other areas.
- 14.4.26 In preparing their waste management strategies, the WPAs already take into account waste generation at the regional and sub-regional scale, and this information is used to determine the need for waste facilities.

14.5 POTENTIAL EFFECTS

- 14.5.1 As described in section 14.3.15, design information relating to the Proposed Development is at an outline stage and therefore, estimates of waste quantities likely to be generated of waste was not available at the time of writing, therefore an indicative assessment is set out below to provide a broad indication as to the potential for significant effects. This is based upon the baseline conditions, assessments for other similar developments and professional judgement.

Construction Stage

Key Types of Wastes Likely to be Generated

- 14.5.2 The Site comprises predominantly agricultural land with a number of buildings, which are in agricultural or residential use. There will be some demolition.
- 14.5.3 The Site will be phased, with development commencing in site BA2 and thereafter progressing in BA1 from a west to easterly direction (from North Road) alongside the build out of BA10. The final phase will comprise BA3 (dependent on the decision regarding secondary school provision). Infrastructure will be delivered at appropriate triggers throughout the development, to be agreed as part of the S106 agreement.
- 14.5.4 The phases will include the following construction activities:
- Enabling works
 - Site preparation
 - Site access
 - Levelling/cut and fill
 - Foundations and structures
 - Building envelopes; and
 - Roads, servicing and landscaping.
- 14.5.5 At a strategic level, the key waste types generated from the construction of the Proposed Development can be classified as follows.
- **INERT** – wastes that will not cause adverse effects to the environment when disposed of, or do not decompose and they have no potentially hazardous content when deposited in a landfill. Examples of inert wastes are rocks, concrete, mortar, glass, uncontaminated soils and aggregates.
 - **NON-HAZARDOUS** – wastes that will decompose when buried resulting in the production of methane and carbon dioxide. Examples of non-hazardous wastes include timber, paper and cardboard.
 - **HAZARDOUS** – wastes that are harmful to human health or the environment (for example, causing pollution of watercourses) if they are incorrectly handled, stored, treated or disposed of. Hazardous wastes may have one or more of the

following properties: explosive, corrosive, flammable, highly flammable, infectious, oxidising or sensitising.

14.5.6 The key types of waste that would be generated from the construction works, are listed below (the list is not exhaustive and will be refined as the design of the Proposed Development progresses):

- Soils (spoil from preparing foundations, installation of drainage and infrastructure);
- Glass;
- Concrete/cement;
- Tarmac, asphalt, bitumen;
- Oils (lubricating oil);
- Metals (cables, wires, bars, relict structures);
- Timber (softwood and board products such as plywood, chipboard), pallets;
- Packaging (paint pots, pallets, cardboard, cable drums, wrapping bands, polythene sheets);
- Plastics (pipes, cladding, frames, non-packaging);
- Green waste (grass, branches etc);
- Paints and solvents;
- Insulation (glass fibre, mineral wool or foamed plastic); and
- Plasterboard.

Diversion of Waste from Landfill

14.5.7 The construction of the Proposed Development has the potential to generate a wide variety of wastes (including those listed in paragraph 14.5.6). In the absence of mitigation, it is assumed that there would be limited implementation of waste minimisation measures or diversion of waste from landfill (i.e. less than 30% of waste arisings would be diverted from landfill). The magnitude of impact is predicted to be Large Adverse.

14.5.8 The Waste Needs Assessment Addendum Report (2024) (13) highlights a capacity gap for non-hazardous and hazardous waste disposal in Hertfordshire during the construction period of the Proposed Development. There is predicted capacity in recovery options for CDE waste, which may reduce the reliance on landfill however a shortfall in inert recovery of CDE waste will occur prior to the completion of construction. Therefore, the sensitivity of the landfill resource is considered to be Very High, however, there is capacity for recovery.

14.5.9 In the absence of mitigation, the significance of the effect is considered to be **Substantial Adverse**.

Post-Completion Stage

Key Types of Waste Likely to be Generated

Residential Units, Older Persons and Accessible Homes

14.5.10 Waste generated during the occupation of the residential units, older persons and accessible homes units are likely to include:

- Food waste;
- Garden waste;
- Paper;
- Card;
- Metals;
- Plastic;
- Plastic film;
- Textiles;
- Waste Electronic and Electrical Equipment (WEEE);
- Hazardous;
- Wood; and
- Miscellaneous waste.

Retail/Employment Areas

14.5.11 The precise retail and employment uses are not confirmed at this outline stage, however the types of waste that are likely to be generated (excluding waste from the waste transfer station and Household Waste Recycling Centre) include:

- Paper;
- Cardboard;
- Printer toners and cartridges;
- Plastic packaging;
- Plastic containers;
- Food waste;
- Pallets;
- Metals;
- Glass;
- Waste oils;
- Solvents;
- Paints;
- Fuels; and
- WEEE.

Schools

14.5.12 The main types of waste generated by schools are paper and card, and food waste, although small quantities of plastic and plastic packaging may also be generated.

Health Centre

- 14.5.13 The main types of waste from the health centre are likely to be clinical and hazardous wastes together with small quantities of glass, plastic and plastic packaging.

Community Centre

- 14.5.14 The main types of waste generated by the community centre are paper and card, and food waste, although small quantities of plastic and plastic packaging may also be generated.

Diversion of Waste from Landfill

- 14.5.15 The operation of the Proposed Development has the potential to generate a wide variety of wastes (including those listed in paragraphs 14.5.10 to 14.5.14). In the absence of mitigation, it is assumed that there would be limited implementation of waste minimisation measures or diversion of waste from landfill (i.e. less than 30% of waste arisings would be diverted from landfill). The magnitude of impact is predicted to be Large Adverse.
- 14.5.16 The Waste Needs Assessment Addendum Report (2024) (13) highlights a capacity gap for non-hazardous and hazardous waste disposal in Hertfordshire during the construction period of the Proposed Development. There is predicted capacity in treatment and recovery options for LAC and C&I waste which would reduce the reliance on landfill. The sensitivity of the landfill resource is considered to be High.
- 14.5.17 In the absence of mitigation, the significance of effect is considered to be **Major Adverse**.

14.6 MITIGATION MEASURES

Construction

Site Waste Management Plan

14.6.1 A Site Waste Management Plan (SWMP) will be prepared that sets out the estimated types and quantities of waste that would be generated during all phases of the Proposed Development, together with measures for how the waste will be managed. The SWMP will be based on the waste hierarchy and proximity principles for managing waste generated by the Proposed Development including targets to divert waste from landfill.

14.6.2 All waste generated by the Proposed Development will be managed in accordance with the waste hierarchy unless it can be demonstrated that an alternative option lower down the hierarchy is the best overall environmental outcome. The measures that will be used to manage waste from the construction phase will be set out in the SWMPs and will include the measures set out below.

Minimisation

14.6.3 The design of the new dwellings, community facilities and commercial buildings would take into account guidance from industry body The Waste and Resources Action Programme (WRAP) to reduce the amount of waste produced:

- design for reuse and recovery;
- design for off site construction;
- design for materials optimisation;
- design for waste efficient procurement; and
- design for deconstruction and flexibility

14.6.4 Most opportunities to minimise the amount of waste generated come from the design stage. The following design measures would be implemented where practicable:

- using pre-fabricated materials for on-site assembly;
- buildings/structures designed to standard dimensions of blocks or frames to avoid off-cuts; and
- internal materials and fittings would be pre-cut to reduce the need for site cutting.

14.6.5 The design of the proposed development aims to retain spoil on site, where practicable. Where spoil has to be removed from the Site steps would be taken to keep the amounts to a minimum and opportunities to recycle the material in the local area would be investigated. A MMP would be prepared to document the management of excavated material on the Site and provide the evidence needed avoid this material being deemed to be a waste.

14.6.6 Waste would also be minimised by improving wastage rates when ordering materials. Waste allowances are generally included within material orders to take into account

design waste and construction process waste. These waste allowances are often generic and not project specific and, therefore, run the risk of being inaccurate. This can lead to a surplus of materials, which typically ends up being discarded (i.e. waste). A system would be put in place to enable the accurate estimates of material requirements (and waste allowances) at the detailed design stage.

- 14.6.7 On appointment of the construction team, the buyer would discuss the purchasing requirements with the site manager to identify priorities and review the quotations received. Materials would be checked against the material specifications as part of the quality control system. Where possible, hazardous materials would be substituted for less hazardous alternatives.
- 14.6.8 Waste minimisation measures would be implemented by the principal contractor and site manager during construction in order to achieve the waste allowance targets. These measures include:
- a logistics system which allows 'just-in-time' deliveries to minimise the length of time materials are stored on site and co-ordinate with other trades;
 - providing suitable and secure storage for materials where 'just-in-time' deliveries cannot be set up;
 - mechanical systems and machinery would be considered for moving materials to reduce the risk of damage; and
 - programming and monitoring construction activities to avoid overlap of incompatible trades working in the same area and to reduce the potential for waste to be generated from replacing damaged work.
- 14.6.9 A target would be set for construction waste resource efficiency for the proposed buildings. This represents the amount of waste generated based on the gross internal floor area of the building. The target for the proposed development would be ≤ 11.1 tonnes of waste generated per 100 m² (gross internal floor area) and is in line with BREEAM New Construction Manual (BRE Global Ltd, 2018) (7).

Recycling

- 14.6.10 Wastes generated during the construction process would be segregated into waste types to facilitate off-site recycling (for example, metals, wood, plastic). The layout of the construction site would be designed to allow sufficient space for separate containers of key waste materials to be stored within a designated waste management area. These containers would be clearly labelled, and construction staff would be given training on waste segregation.
- 14.6.11 Green waste generated during site preparation works would be composted off-site at an appropriate facility. Opportunities would be investigated to retain woody material on site for landscaping and ecological planting.

14.6.12 Where practicable, products and materials with 10% recycled content (based on the value of the materials) would be selected, taking into account cost and availability. An example of recycled content materials would be recycled aggregate and secondary aggregates for use in concrete, or granular fill.

14.6.13 Hertfordshire County Council's Waste Core Strategy and Development Policies (2012) (2) sets a target for the diversion of CDE waste from landfill. By tonnage, this target is:

- divert a minimum of 90% of CDE waste from landfill.

Disposal

14.6.14 Any waste that cannot be reused, recycled or recovered would be collected by the licensed waste management contractor and disposed of at a permitted site suitable for the type of waste. Burning of surplus material or material arising from the site construction would not be permitted.

Storage of Waste

14.6.15 Waste storage areas would be provided at the at the construction site. Each skip/container would be clearly marked to indicate the intended contents and would be suitable for the storage of the specified contents. All skips/containers would be covered to prevent the escape of waste by wind blow or vandalism. If liquid waste is being stored, an appropriate bund and drip pans would be in place.

14.6.16 Storage areas would be located away from potential contaminant pathways such as drains, and excavations and trenches.

14.6.17 Any hazardous waste would be stored safely in a designated area away from non-hazardous and inert wastes and labelled accordingly.

Materials Management Plan

14.6.18 A Materials Management Plan (MMP) will be prepared to demonstrate that the material excavated from the Site during earthworks will not harm human health or the environment. Regulatory authorities, including the Environment Agency, will be consulted to confirm that they have no objection to the use of the CL:AIRE Definition of Waste: Code of Practice (6), and that any risk assessments and remedial strategies have been agreed and any associated planning conditions or requirements discharged by such bodies.

14.6.19 The CL:AIRE MMP will relate to non-hazardous excavated material, which will include:

- soil, both topsoil and subsoil, parent material and
- underlying geology; ground based infrastructure that is capable of reuse within earthworks projects (e.g. road base,
- concrete floors);

- made ground;
- source segregated aggregate material arising from demolition activities, such as crushed brick and concrete, to be reused on the Site of production within earthworks projects or as a sub-base or drainage materials; and
- stockpiled excavated materials that include the above.

Registered Carriers

- 14.6.20 To meet the requirements of Section 34 of the Environmental Protection Act 1990, waste materials arising from the construction of the proposed development would only be transported by waste carriers and hazardous waste carriers holding a valid registration with the Environment Agency. Each consignment of waste removed from the construction site would be accompanied by a waste transfer note (or hazardous waste consignment note as appropriate), which correctly describes the waste using the European Waste Catalogue code, identifies the waste carrier and where the waste would be transported to. Requirements for transferring waste and registered waste carriers are set out in Part 8 and 9 of the Waste (England and Wales) Regulations 2011 (as amended). The waste would only be transferred to facilities that have the benefit of a registered waste exemption, or an environmental permit. Periodic audits would be undertaken of these facilities.

Records

- 14.6.21 Prior to construction, the types and quantity of wastes likely to be generated during the construction of buildings, structures and other works (see above) would be set out in Waste Forecast sheets. The forecast is a useful planning tool to record the types of waste that would be generated. Targets can then be set for different waste types and entered into a Waste Estimates Data Sheet. This provides a more detailed breakdown of how the wastes would be managed (e.g. reused on site, recycled on site, recycled off site).
- 14.6.22 Once construction is underway, the principal contractor would complete the Waste Management Data Sheet every time waste is removed from the Site and would record:
- the types and quantities of waste produced;
 - the types and quantities of waste that have been re-used/ recycled/ recovered/ landfilled or otherwise disposed of on or off site;
 - the registration number of the waste carrier;
 - a copy of or reference to the written description of the waste; and
 - details of the Site where the waste is taken to and its permit number.

Post-Completion Stage

- 14.6.23 Sustainable waste management will be integral to the design of the development to allow occupants of the development to manage their waste sustainably (as high as possible up the waste hierarchy), in accordance with national, regional and local waste management targets.

- 14.6.24 The design of the Proposed Development will ensure adequate provision for internal and external waste storage to allow waste segregation post-completion.

Design of Waste Storage Facilities*Residential Units*

- 14.6.25 The design of the waste storage areas would take into account guidance from the developers minimum standards check list (2024) (North Herts Council, 2025) (15) and The Building Regulations (Amendment) 2001 Approved Document H (2002 edition) (Part H6). The design would follow the general layout principles so that waste storage areas would be:
- appropriately located and incorporated into the design of the Proposed Development;
 - fit for purpose in terms of size, ventilation, dimensions and materials; and
 - easy to access for users.

- 14.6.26 Each unit would have adequate external space for the storage of waste containers including separate containers for recyclable materials.

Other Uses

- 14.6.27 Waste storage areas would be incorporated into the design of the other uses (i.e. retail/employment areas, health centre, community centres and schools) as appropriate. The waste storage areas would be of sufficient size to contain the adequate number of 1,100 litre bins for the waste generated and to allow for the separate collection of recyclable materials. The waste storage area would be dedicated to the use of waste storage and would not be used for parking or other purposes. The area would be secure and appropriately located to allow easy collection.
- 14.6.28 Waste storage and collection for all non-domestic premises (schools, health hub, employment) will comply with the government's Simpler Recycling requirements: separate dry recyclables (plastic, metal, glass, paper and card) and food waste from residuals; paper/card will be separately collected by default. Storage capacities, signage and management plans will reflect these duties. North Herts Council require that space for a minimum of three streams of waste collection will be provided for commercial premises. Food waste collection will also be provided for businesses with more than 10 employees.

Collection of Waste During Occupation*Residential Units*

- 14.6.29 Collection of waste from residential units would be undertaken by North Herts Council as the Waste Collection Authority. Each house would receive two 240-litre bins, one for cardboard and paper and one for mixed recycling, one 180 – litre for non-recyclable waste

and one 23-litre food waste caddy. Optional subscription service is available for a 240-litre garden waste bin.

- 14.6.30 For the flats, North Herts Council would provide the appropriate size and number of bins for general waste and dry recycling. The size of the bin provided would depend on the number of occupants in each apartment.
- 14.6.31 Section 34(2A) of the Environmental Protection Act 1990 places a duty on occupiers of a domestic property in England to take all measures reasonable in the circumstances to ensure they only transfer their household waste to an 'authorised person' (i.e. the local authority collection service, a registered waste carrier or an operator of a registered site).
- 14.6.32 For wastes that cannot be disposed of by the collection service occupants could either:
- Take the waste to the local authority's household waste and recycling centre (subject to the accepting the type of waste);
 - Check if the local authority offers a special collection service;
 - Use a private business that provides a waste collection service; or
 - Take the waste to a site run by a private business with the appropriate authorisations.

Other Uses

- 14.6.33 Collection of waste from the other uses would be arranged under commercial waste collection contracts. Wastes should only be transferred to authorised individuals or businesses as listed on the Environment Agency's public register of waste carriers.
- 14.6.34 North Herts Council offer schools the opportunity to sign up to waste collection services. This includes food waste, paper and mixed recycling.

Centralised Facilities

- 14.6.35 The Applicant is committed to supporting the provision of centralised recycling facilities. A waste transfer station and a household waste recycling centre are included within the Proposed Development.

Targets

- 14.6.36 Hertfordshire County Council's Waste Core Strategy and Development Policies (2012) (2) sets a target to recycle or compost LAC and C&I waste. By tonnage, these targets are:
- Recycle or compost a minimum of 60% of LAC waste
 - Recycle or compost a minimum of 60% of C&I waste

14.7 RESIDUAL EFFECTS

- 14.7.1 The assessment of the residual effects takes into account the implementation of the proposed mitigation measures set out in section 14.6.

Construction Stage

Diversion of Waste from Landfill

- 14.7.2 With the implementation of the mitigation measures the magnitude of impact would reduce to negligible (i.e. diversion of 90-99% waste) and the significance of effect would be **Minor Adverse**.

Post-Completion Stage

Diversion of Waste from Landfill

- 14.7.3 With the implementation of the mitigation measures the magnitude of impact would reduce to small (i.e. diversion of 60-89% waste) and the significance of effect would be **Minor Adverse**.

Summary of Effects

- 14.7.4 The effects identified are summarised in **Table 14.11** below:

Table 14.11 - Summary of Effects

Potential Effect	Significance (pre-mitigation)	Mitigation Measure	Significance of residual effect
Construction Stage			
Diversion of waste from landfill - inert and non-hazardous landfill capacity	Substantial Adverse (significant)	Site Waste Management Plan and waste targets	Minor Adverse, not significant
Diversion of waste from landfill - hazardous landfill capacity	Substantial Adverse (significant)		Minor Adverse, not significant
Post-Completion Stage			
Diversion of waste from landfill - inert and non-hazardous landfill capacity	Major Adverse (significant)	Design measures and waste targets	Minor Adverse, not significant
Diversion of waste from landfill - hazardous landfill capacity	Major Adverse (significant)		Minor Adverse, not significant

14.8 CUMULATIVE EFFECTS

- 14.8.1 The list of cumulative projects is provided in **Table 14.12** below and has been informed by Chapter 2 of the ES. Cumulative effects arising from the interaction between the Proposed Development and other developments.

Table 14.12 - Cumulative Development

Site	Policy/Application Reference	Summary of the Proposal	Status
Land east of Rhee Spring and Orwell View, Royston Road, Baldock	NHLP Local Housing Allocation BA4 21/01882/FP	42 dwellings	Appeal allowed on 20 May 2025, to be commenced
Land to the east of Talbot Way And Kristiansand Way and Flint Road, Letchworth Garden City, SG6 1TY	NHLP Local Housing Allocation LG3 21/00504/OP	120 dwellings	Outline permission granted on 3 April 2025, to be commenced
Land to the north of Letchworth	NHLP Strategic Housing Site LG1	900 dwellings	Strategic Masterplan has been adopted
Land west of Ashwell Road, Bygrave, SG7 5EB	22/00741/FP	53.62 ha solar farm	Full permission granted on 17 June 2024

- 14.8.2 The generation of CDE waste by the Proposed Development would be temporary in nature. A cumulative effect on this waste stream may arise if a number of developments come forward at the same time, thereby putting pressure on existing infrastructure. The construction of the Proposed Development will be spread over four phases; when the phases are assessed separately the cumulative impacts would be **Minor Adverse**.
- 14.8.3 With regards to the operational phase, the cumulative developments will be required to prepare and implement waste management measures to minimise waste and to maximize the diversion of waste from landfill in accordance with the waste hierarchy and national and local waste policy. In addition, the Site's waste transfer station and household waste recycling centre will increase the capacity of local waste management infrastructure and will reduce the potential cumulative impacts.
- 14.8.4 Overall, during the medium and long term, cumulative impacts would be **Minor Adverse** and therefore, not considered to be significant.

14.9 REFERENCE LIST

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