

15.0 WASTE

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15.1 INTRODUCTION

15.1.1 This chapter has been prepared by Brookbanks Consulting Ltd to present the findings of an assessment of the likely effects of waste arising from the Proposed Development of Land at Bankside (Phase 2), Banbury.

15.1.2 The assessment considers the potential effects of both the construction and operational phases and identifies both the risks and associated mitigation requirements.

15.2 ASSESSMENT METHODOLOGY

Scope

15.2.1 For the purposes of this assessment the study area has been taken as the red line application site boundary.

Data sources

15.2.2 During the development of this chapter, the following statutory bodies and interested parties have been consulted regarding the proposals:

- Environment Agency
- Oxfordshire County Council

Assessment approach

15.2.3 The format of this section of the ES sets out an appraisal of the baseline conditions, followed by a description of the relevant policy context and an identification of potential environmental effects due to the application proposals. The importance of

each mechanism and an assessment of each potential effect are then considered along with any mitigation measures and recommendations.

15.2.4 Methods of assessment have been employed that are consistent with current guidance and recommendations in the form of statutory documents and recognised publications to ensure that the findings represent a robust approach to the assessment.

Significance criteria

15.2.5 Tables 15.1 – 15.2 outline the criteria for determining the magnitude and significance of the identified impacts.

Table 15.1: Magnitude

Large	Moderate	Small	Negligible
Loss of Attribute	Losses on integrity of partial loss of attribute	Minor impact or minor attribute loss	Insignificant attribute loss

Table 15.2: Significance

MAGNITUDE	SENSITIVITY			
	High	Medium	Low	Negligible
Large	Major	Major	Moderate	Minor
Moderate	Major	Moderate	Minor	Negligible
Small	Moderate	Minor	Minor	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

Uncertainties and limitations

15.2.6 Brookbanks Consulting Ltd has utilised third part data in the production of this assessment which has been assumed correct at the time of production.

15.3 RELEVANT POLICY

National Policy

Waste Management Plan for England (2013)

15.3.1 The DEFRA Waste Management Plan for England 2013 presents the Government's vision for managing waste and resources in both England and Wales in a more sustainable manner. It provides a strategic overview of waste policy and sets out challenging targets at a national level for the reduction of household, industrial and commercial waste streams, including the following.

- at least 50% by weight of waste from households is prepared for re-use or recycled.
- at least 70% by weight of construction and demolition waste is subjected to material recovery.

15.3.2 The production of waste is a natural result of economic and social activity by businesses and consumers, and has been throughout human history. There are costs and benefits involved – the resources used in the production process and the benefits gained from consuming goods and services. The key is to ensure that the value we extract from resources is not exceeded by the costs of using them, and therefore that we do not produce excessive amounts of waste. It is also important to make sure that

waste is optimally managed, so that the costs to society of dealing with waste, including the environmental costs, are minimised.

15.3.3 The way in which waste is managed has changed dramatically over the last twenty years in the UK, as have attitudes towards waste management. There has been a major decrease in waste being disposed of to landfill and an increase in recycling. The key aim of the waste management plan for England is to set out our work towards a zero waste economy as part of the transition to a sustainable economy. In particular, this means using the waste hierarchy (waste prevention, re-use, recycling, recovery and finally disposal as a last option) as a guide to sustainable waste management.

15.3.4 Over the past few years, there has been significant progress with waste and resource management in England. Recycling and composting of household waste has increased to 43%; waste generated by businesses has declined by 29% and business recycling rates are 52%. Waste going to landfill has nearly halved since 2000.

15.3.5 This progress has been driven by a range of policies. The landfill tax escalator has created a strong incentive to divert waste from landfill. Additional funding for local authorities, including through the private finance initiative, has led to the development of new waste treatment facilities. National planning policy seeks to enable local authorities to put planning strategies in place through their local plans, which shape the type of waste facilities in their areas and where they should go. All of these measures are helping to drive waste to be managed further up the waste hierarchy.

15.3.6 The Government Review of Waste Policy in England 2011 (hereafter referred to as the Waste Review 2011) evaluated waste management policies for England and their delivery to ensure that the policies were fit for purpose, meeting societies expectations while reflecting the Government's ambitions for a zero waste economy.

15.3.7 The Waste Management Plan for England is a high-level document, which is non – site specific. It provides an analysis of the current waste management situation in England, and evaluates how it will support implementation of the objectives and provisions of the revised Waste Framework Directive (WFD). National Planning Policy for Waste provides the planning framework to enable local authorities to put forward, through local waste management plans, planning strategies that identify sites and areas suitable for new or enhanced waste management facilities to meet the waste management needs of their areas.

15.3.8 This Waste Management Plan supersedes the previous waste management plan for England since this needs updating, as the requirements in Article 28 of the revised WFD are broader than the requirements of Article 7 in the preceding WFD. This Plan provides an overview of waste management in England and fulfils the revised WFD Article 28 mandatory requirements, and other required content as set out in Schedule 1 to the Waste (England and Wales) Regulations 2011.

15.3.9 The mandatory requirements of Article 28 of the revised WFD specify that the Plan should contain the following information:

- An analysis of the current waste management situation in the geographical entity concerned, as well as the measures to be taken to improve environmentally sound preparing for re-use, recycling, recovery and disposal of waste and an evaluation of how the plan will support the implementation of the objectives and provisions of the revised WFD.
- The type, quantity and source of waste generated within the territory, the waste likely to be shipped from or to the national territory, and an evaluation of the development of waste streams in the future;

- Existing waste collection schemes and major disposal and recovery installations, including any special arrangements for waste oils, hazardous waste or waste streams addressed by specific Community legislation;

15.3.10 In addition, Schedule 1 to the Waste (England and Wales) Regulations 2011 sets out other obligations for the Plan, which have been transposed, from the revised WFD.

These other obligations include:

- In pursuance of the objectives and measures in Directive 94/62/EC (on packaging and packaging waste), a chapter on the management of packaging and packaging waste, including measures taken pursuant to Articles 4 and 5 of that Directive.
- Measures to promote high quality recycling including the setting up of separate collections of waste where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors.
- As appropriate, measures to encourage the separate collection of bio-waste with a view to the composting and digestion of bio-waste.

15.3.11 As appropriate, measures to be taken to promote the re-use of products and preparing for re-use activities, in particular:

- (a) measures to encourage the establishment and support of re-use and repair networks;
- (b) the use of economic instruments;
- (c) the use of procurement criteria; and
- (d) the setting of quantitative objectives.

- Measures to be taken to ensure that by 2020:
 - (a) at least 70% by weight of construction and demolition waste is subjected to material recovery.
 - (b) at least 50% by weight of waste from households is prepared for re-use or recycled.

15.3.12 There are comprehensive waste management policies in England which taken together deliver the objectives of the revised Waste Framework Directive: to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use. It is not, therefore, the intention of the Plan to introduce new policies or to change the landscape of how waste is managed in England. Its core aim is to bring current policies under the umbrella of the one national plan.

15.3.13 The Waste Review 2011 details the main policies, which fall under the Waste Management Plan for England umbrella including National Planning Policy for Waste other documents such as the Anaerobic Digestion Strategy and Action Plan 2011 and the UK Plan for Shipments of Waste S7.

15.3.14 Within the Plan, the chapter on the Current Waste Management Situation in England summarises how we apply the Waste Hierarchy in England. One element of this – the Waste Prevention Programme for England – is still under development. This chapter also explains how waste management is regulated by the Environment Agency to prevent harm to human health and the environment.

15.3.15 The chapter on waste arisings summarises information on the extent, nature and sources of waste, which is necessary to underpin decisions on waste management. Subsequent chapters provide further detail on actions to deliver the objectives of the Directive by promoting better quality recycling and, where required, new collections and infrastructure. Finally, the Plan considers the future development of waste streams in the light of current policies.

15.3.16 The Plan, like the Waste Review 2011 - recognises that Government alone cannot deliver the objectives of the Directive. It requires action by businesses, consumers, householders and local authorities. The policies summarised in the Plan provide a framework for action by such groups.

National Planning Policy Framework (February 2019)

15.3.17 More recently, the Government has introduced a number of reforms which aim to make the planning system less complex and more accessible while promoting sustainable growth. In addition to the measures introduced by the Localism Act, the Government has sought to achieve this through the consolidation of national planning policy.

15.3.18 National planning policy is now set out in a single overarching National Planning Policy Framework (NPPF), first published in March 2012 and updated in February 2019. This has consolidated and replaced a large number of former, distinct planning policy statements (PPS's) which covered specific planning topic areas.

15.3.19 As part of the ongoing development of the NPPF, and the emergence of the Planning Practice Guidance, the national policy for waste has been consolidated into the National Planning Policy for Waste, published in October 2014. This document draws on the ambitions set out in the Waste Management Plan for England (2013) whilst

providing further guidance for the local authorities in determining waste planning applications.

Local Policy

The Waste Core Strategy Development Plan, Adopted 2012 (Oxfordshire County Council)

15.3.20 The Waste Core Strategy Development Plan comprises the following ten core policies.

Policy W1: The amount of waste to be provided for

Policy W2: Import of non-hazardous waste

Policy W3: Waste management targets

Policy W4: Provision of additional waste management capacity

Policy W5: Provision of additional waste management facilities

Policy W6: Sites for waste management facilities

Policy W7: Landfill

Policy W8: Hazardous and radioactive waste

Policy W9: Management of radioactive waste at Harwell and Culham

Policy W10: Safeguarding waste management sites

Oxfordshire Minerals and Waste Local Plan Part 1-Core Strategy, Adopted 2017

15.3.21 The Oxfordshire Waste Planning Vision is supported by the following objectives which underpin the waste strategy and policies in this plan:

- i. Make provision for waste management (including residual waste disposal) capacity that allows Oxfordshire to be net self-sufficient in meeting its own

needs for municipal solid waste, commercial and industrial waste, and construction, demolition and excavation waste.

- ii. Make provision for facilities for the management of agricultural waste, waste water, hazardous waste and radioactive waste produced in Oxfordshire, recognising that specialist facilities for hazardous and radioactive wastes often require provision at a sub-national or national level.
- iii. Support initiatives that help reduce the amounts of waste produced and provide for the delivery, as soon as is practicable, of waste management facilities that will drive waste away from landfill and as far up the waste hierarchy²⁶ as possible; in particular facilities that will enable increased re-use, recycling and composting of waste and the recovery of resources from remaining waste.
- iv. Seek to provide for waste to be managed as close as possible to where it arises, and encourage other Waste Planning Authorities to become net self-sufficient in meeting their own waste needs, to:
 - o minimise the distance waste needs to be transported by road;
 - o reduce adverse impacts of waste transportation on local communities and the environment; and
 - o enable communities to take responsibility for their own waste.
- v. Provide for a broad distribution of waste management facilities to meet local needs across Oxfordshire and make more specific provision for larger facilities that are needed to serve the whole or more substantial parts of the county or a wider area.
- vi. Seek to ensure that the waste management facilities required in Oxfordshire are provided as an integral part of the infrastructure of the county and where possible are located to enable local employment and local use of energy (heat and power) recovered from waste.
- vii. Seek to maintain opportunity for necessary disposal of residual waste from Oxfordshire and other areas in operational landfill sites.

- viii. Avoid the unnecessary loss of green field land when making provision for sites for waste management facilities, giving priority to the re-use of previously developed land.
- ix. Protect Oxfordshire's communities and natural and historic environments (including important landscapes and ecological, geological and archaeological and other heritage assets) from the harmful impacts of waste management development (including traffic).
- x. Secure the satisfactory restoration of temporary waste management sites, including landfills, where the facility is no longer required or acceptable in that location.

15.4 BASELINE CONDITIONS

15.4.1 Around 30 million tonnes of household waste is produced in the United Kingdom each year, and annual local authority expenditure on waste management in England and Wales in recent years is about £1.4 billion.

15.4.2 Cherwell District Council is the local authority responsible for the Proposed Development area and collects the household waste. However it then becomes the responsibility of the County Council (Oxfordshire County Council) to dispose of the waste safely, this is carried out at the County's Household Waste Recycling Centres.

15.4.3 The Proposed Development is currently undeveloped and therefore no waste is generated by the site.

The projected future baseline

15.4.4 The baseline conditions into the future would remain the same, with a negligible impact from waste, should the Proposed Development not proceed.

15.5 POTENTIAL EFFECTS

15.5.1 The potential waste effects of the development proposal relate to both the operation and construction phases of the development. These effects are as follows:

Construction Stage: short to medium term

- *Direct production of excessive waste and potential failure to meet local and national targets for waste reduction and recycling through uncontrolled construction operations.*

15.5.2 The principal impact during the construction stage arises from the material generated during site clearance. As the site is agricultural use, very little demolition or site clearance is anticipated as a result of the Proposed Development. However, opportunities exist to seek a balanced cut and fill on the Site where possible, to reduce the import and export of materials. It is anticipated that material generated during the earthworks stage of construction, prior to the implementation of appropriate mitigation and on-site re-use measures, will result in a moderate adverse impact.

15.5.3 During the construction stage, there is the potential to create wastage of raw materials that may require off-site disposal. Some of the waste streams likely to be generated during the construction of building frames, internal fittings, electrical installations and external works (landscaping) include:

- (i) Concrete & bricks
- (ii) Wood
- (iii) Metals
- (iv) Residual glass waste
- (v) Soil
- (vi) Hard and soft plastics
- (vii) Residual general site waste
- (viii) Cardboard
- (ix) Pallets
- (x) Packaging

15.5.4 Recent benchmarking activities¹ across 23 reference sites suggests typical housing construction related waste streams to be as shown below on Figure 14.3.

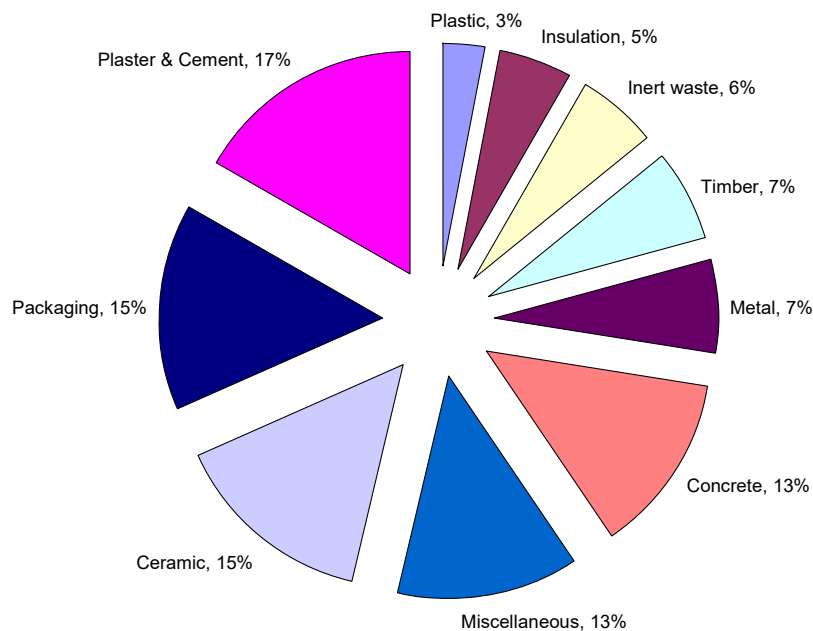


Figure 15.3 Construction Waste Distribution

¹ Developing a Strategic Approach to Construction Waste, DEFRA, BRE, AEA 2006

15.5.5 Prior to mitigation, this would have an impact by depleting finite landfill capacity and increasing transport and disposal costs as a result of the Landfill Directive. This will result in a moderate adverse impact prior to the implementation of on-site mitigation measures.

15.5.6 The potential impact from the off-site disposal of waste generated from the Proposed Development could also result in increased traffic movements. If no recycling initiatives are implemented at the Site, this will increase the off-site lorry movements and the amount of waste disposed of to landfill, again resulting in a moderate adverse impact.

Operational Phase

- ***Direct production of excessive waste*** and potential failure to meet local and national targets for waste reduction and recycling through insufficient measures to enable appropriate composting and recycling within the Proposed Development.

15.5.7 The Waste Authority recognises the importance of waste segregation for domestic and non-domestic waste. Hence design and management procedures need to be considered as part of Proposed Development in order to contribute to the waste strategy targets.

15.5.8 Consideration has been given to the adverse effects of the development arising from its vulnerability to risks of major accidents or disasters. No such major risks are identified that are likely to cause any significant adverse effects on waster within the project area, arising from any vulnerability of development to such risk.

15.6 MITIGATION MEASURES

15.6.1 In general terms, the waste strategy for the Proposed Development will be designed to:

- (i) Minimise the production of waste during construction.
- (ii) Segregate, recycle, reuse and dispose appropriately of all construction wastes.
- (iii) Provide facilities within the Proposed Development to encourage the composting, recycling and appropriate disposal of household wastes in accordance with local and national policy.

Construction Stage: short to medium term

15.6.2 In mitigation of the potential moderate adverse effects identified, it is intended that construction will be regulated through the proposed CEMP, which will include the measures where possible and reasonably practical in respect of waste management such as the following:

- (i) Avoidance: Good site quality control
Careful storage of materials to avoid weather damage.
- (ii) Reduction: Careful design to minimise waste production.
Reduction of packaging from suppliers
- (iii) Reuse: Take back / return of certain material packaging and
protections such as pallets.
On-site reuse of topsoil, sub-soil and hardcore.
- (iv) Recycling: Returning off-cuts of materials such as plasterboard.
Use of products with a high recycled content
- (v) Disposal: Provision of segregated skips to aid off-site recycling

15.6.3 In accordance with the Site Waste Management Plan Regulations 2008, a Waste Management Plan (WMP) will be prepared and agreed ahead of construction. The WMP is a practical working document held by contractors and often agreed with the relevant officers of the local authorities (including in particular those with responsibility for environmental health and waste management). The WMP will consolidate the site management and mitigation measures developed in more detail as part of the detailed design and planning stages.

15.6.4 The WMP is likely to include measures in relation to the following matters:

- (i) An earthworks strategy, the primary emphasis of which will be to limit the disposal of excavated material off-site to landfill and also to limit the need to import fill material to the Site and to reuse wherever possible material generated during construction whether as fill material or for the strategic landscaped areas. If further fill material is required during the earthworks stage, where permitted by the local authority, preference is to be given to the use of locally available reclaimed and recycled materials and aggregates.
- (ii) Responsibility to address on-site compliance, monitoring of health and safety and maintaining good on-site working practices including good storage and waste management practices.
- (iii) Working practices to reduce waste at source, re-use and recycle waste where practical. Such measures should consider the opportunities for the segregation of recyclable materials, the storage of waste and of materials to avoid material wastage, and the dissemination of awareness of good practice measures to reduce waste at source.
- (iv) Reducing material wastage through the effective handling, storage and delivery of materials to prevent loss or damage through exposure to the weather, mud and on-site vehicles.

- (v) Security measures to prevent any loss of materials from vandalism or theft of material.
- (vi) Disposal measures including arrangements for the management of traffic setting out appropriate access points away from sensitive receptors and permissible haul routes and delivery times.
- (vii) A suitable programme of monitoring to determine the success of waste management practices employed on the Site and to review measures for the reduction and management of waste and promoting recycling.

15.6.5 Following mitigation implemented through the WMP, the construction stage effects are assessed to be negligible.

Operational Phase

15.6.6 The mitigation strategy for the Proposed Development will be consistent with national waste policies, together with those adopted by Cherwell District Council and Oxfordshire County Council as previously in section 14.3.

15.6.7 In order to enhance the potential to achieve a recycling rate in line with national guidance and local policy, a range of mitigation measures are proposed to include the provision of facilities for recycling and composting, increasing the awareness of recycling opportunities and measures that relate to design.

15.6.8 In order to ensure the future success of the waste strategy for the Proposed Development, it is important to gain the commitment and support of all occupants. The success in working towards this recycling objective will be dependent on the participation rates of the residents and the success of the dissemination of information to educate, raise awareness and secure participation of the residents, together with

feeding back key achievements of the recycling initiatives to the residents. Equally, it will depend upon the delivery of the waste strategy and the measures proposed within it in relation to the expansion of opportunities for recycling as outlined in the following sections:

Waste Receptacle Provision: The provision of waste receptacles will be in line with the current Waste Plan. Cherwell District Council provides for the following:

Dry Recyclables: Paper, Textiles, Shoes and batteries, Tins and cans, Foil
(Fortnightly collections) (including trays) and Aerosols

- A blue bin is provided for the dry recyclables and extra recycling will be taken if left next to the bin in a box or bag.

Food and Garden Waste: fruit and vegetable peelings, cooked food, uncooked food, meat and fish
(Fortnightly collections) (including bones), plate scrapings, tea bags and coffee grounds, cat and dog food, grass cuttings, straw, flowers, branches and leaves.

- A food caddy is provided for the food waste generated by a household, which should either be wrapped in newspaper or placed inside a compostable liner/bag.

Non-Recyclables: Any rubbish that can't go in the recycling box or food caddy. The wheeled bin
(Fortnightly collections) should not contain garden waste, rubble or hazardous waste.

- A green bin is provided for the non-recyclables. Anything that can't be recycled or used which is placed in the black wheeled bin will go to an energy recovery facility in Oxfordshire where it is incinerated

15.6.9 Accordingly, the Proposed Development will aim to incorporate measures that provide for the ready recycling of both dry recyclable materials and food and garden waste through kerbside collections by the Council.

15.6.10 The Minerals and Waste Local Plan is in 2 parts. Part 1: Core Strategy and Part 2: Site Allocations and replaced the 1996 plan.

15.6.11 The plan indicates that “much of the existing capacity is provided by two large facilities. Shellingford Quarry has permission to operate until 2028; and Shipton-on-Cherwell Quarry has permission to operate until 2025. The existing and permitted sites should provide sufficient capacity for the ‘disposal’ of Oxfordshire’s forecast waste (593,000 tonnes per annum) at least until 2025.”

Storage Capacity Requirements: It is important that consideration is given to the storage and collection of refuse at the Proposed Development.

Individual Dwellings: For the individual residential dwellings, consideration should be given to storage space that will be needed to accommodate the receptacles provided. Any external storage space in houses should be in close proximity to the waste collection point, where possible and appropriate.

Communal Waste Storage: For flats, communal waste storage areas should be considered and located in close proximity to the nearest area for the refuse collection vehicle to gain access.

15.6.12 It is recommended that the consideration of such waste storage provisions should enable recyclable and non-recyclable waste streams to be segregated.

15.6.13 **Waste Collection and Access for Refuse Collection Vehicles:** The waste collection arrangements for household waste will need to be agreed with Cherwell District Council, who are the Waste Collection Authority and Oxfordshire County Council, who are the Waste Disposal Authority. In addition, it is important that all adopted roads at the Proposed Development consider accessibility and design to ensure that access for large vehicles, including refuse collection vehicles, is taken into account. Where communal refuse storage areas are provided, it is proposed that these areas are directly accessible to refuse collection vehicles.

15.6.14 **Local Waste Recycling Centres:** To further encourage the recycling of waste Cherwell District Council operates a number of recycling banks located across the district. The nearest Recycling Bank to the Proposed Development is Cherwell District Council Offices which is approximately 0.75km from the site.

15.6.15 Table 15.4 lists the waste materials that Cherwell District Council Offices collects is:

Table 15.4: Cherwell District Council Offices

Acceptable Materials		
Cardboard (greeting cards)	Foil including trays	Glass bottles and jars
Bulky/rigid plastics	Foil: clean aluminium foil only (recycled with metal)	Newspapers and magazines
Metal (aerosols, drinks cans, food tins)	Paper	Clothing/ shoes and bags

15.6.16 The local waste recycling centre will form an important facility for residents of the Proposed Development and therefore further encourage recycling.

15.6.17 With the successful implementation of the mitigation strategy, the residual post-completion effect of the Proposed Development in terms of waste is assessed as being negligible.

15.7 RESIDUAL EFFECTS

Construction stage

15.7.1 Taking into account the proposed mitigation measures outlined, no greater than negligible effects are predicted to arise.

Operational Phase

15.7.2 Again, taking into account the proposed mitigation measures outlined, no greater than negligible effects are predicted to arise.

Summary of effects

15.7.3 The Proposed Development will be designed to avoid significant adverse effects resulting during the operational phase and during construction works. Table 15.5 summarises the potential effects.

Table 15.5: Summary of effects – Proposed Development

Potential effect	Significance (pre-mitigation)	Mitigation measure	Significance of residual effect
Construction stage			
Production of excessive waste	Moderate adverse	Minimise the production of waste during construction, including through the proposed CEMP and WMP Segregate, recycle, reuse and dispose appropriately of all construction wastes.	Negligible
Operational Phase			

Production of excessive waste	Minor - Moderate adverse	Provide facilities within the Proposed Development, including disseminating information to residents and users, to encourage the composting, recycling and appropriate disposal of household wastes, in accordance with local and national policy.	Negligible
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15.8 CUMULATIVE EFFECTS

15.8.1 It is anticipated that regulatory control will ensure all Proposed Development sites achieve the baseline standards in relation to waste management and as such, no cumulative impacts are anticipated.