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14 MATERIAL ASSETS AND WASTE

14.1 Introduction

- 14.1.1 This chapter sets out justifications for the scoping out the assessment of environmental effects associated with material assets and waste in this draft Environmental Statement.
- 14.1.2 This chapter is to be read in conjunction with the Outline Site Waste Management Plan (OSWMP; as provided in **Volume 4, Technical Appendix 14.1**) and the wider Draft Environmental Statement, in particular **Volume 2, Chapter 7: Climate** and **Volume 2, Chapter 11: Traffic and Transport**.

14.2 Consultation, scope and Study Area

Consultation undertaken to date

14.2.1 No specific consultation has been undertaken with reference to the material assets and waste assessment. The EIA scoping process is considered in the following sub-section.

Scope of the assessment

- 14.2.2 The scope of this assessment has been established through an ongoing scoping process. Further information can be found in **Volume 2, Chapter 4**: **Approach to EIA.**
- 14.2.3 The Scoping Direction was issued based on the Scoping Report submitted to Planning and Environment Decisions Wales, dated 04 November 2022; of particular note is ID.11, which states:

"Although is clear that construction waste generated will not be atypical compared to the construction of projects of similar nature and scale, the SR does not contain any information regarding the substances used during the operations. NRW [Natural Resources Wales] advises in their response at Appendix 1 that the Site's existing Environmental Permit will need to be amended and the SR appears to suggest that there will be a stream of hazardous waste generated during construction and operations (see paragraph 5.2.5). Therefore, it is not possible at this stage to understand whether this aspect could be scoped out based on the information provided.

Material Assets are therefore scoped into the ES [Environmental Statement] at this stage. If the Applicant still wish to scope material assets out of the assessment, more information should be provided in ES to satisfy the decision maker that there will be no significant impacts generated by the Proposed Development."

14.2.4 Natural Resources Wales also provided the following comment in the Scoping Direction:



"We acknowledge the proposal to implement a Site Management Plan and concur with the conclusion that this topic [Material assets] can be scoped out of the ES."

- 14.2.5 In light of Planning and Environment Decisions Wales' and Natural Resources Wales' comments, an assessment of the material assets used and waste generated by the Proposed Development has been undertaken. This chapter concludes that material assets and waste can appropriately be scoped out of the draft Environmental Statement as the Proposed Development will not generate significant environmental effects in relation to these aspects.
- 14.2.6 The OSWMP covers the potential impacts that may arise from waste generated during site preparation, construction and operational phases of the Proposed Development. The OSWMP provides an outline strategy for legislative compliance and good practice in the separation, storage, collection, treatment, recovery and disposal of waste. It details opportunities for implementing waste mitigation measures at each stage of the Proposed Development to ensure such measures are consistent with both the Welsh Government and Flintshire Council waste policies and targets. It is anticipated that the production, approval and implementation of a finalised SWMP will be the subject of a planning condition.
- 14.2.7 As discussed in the introductory sections of the draft Environmental Statement, the Carbon Capture Plant is intended to operate for as long as the existing operational cement works, and therefore decommissioning is not proposed until the ultimate decommissioning of the cement works site. However, as per the request in PEDW's Scoping Direction to consider decommissioning effects, a brief consideration is provided in the event that decommissioning on an earlier timescale were to be required.
- 14.2.8 The majority of the effects associated with decommissioning would be similar in nature to, but at a reduced scale to construction phase effects. There would be fewer materials, plant, labour and vehicles required during decommissioning when compared to construction. Decommissioning would take place over a shorter duration, and activities would be focused on areas of the Site which at that point would already be developed. Consequently, the magnitude and significance of effects associated with decommissioning would not differ in nature from nor exceed those assessed elsewhere in this chapter in respect of construction. It is therefore not considered necessary to provide a separate detailed assessment of decommissioning related effects.
- 14.2.9 Decommissioning, if required, would be conducted in accordance with the regulatory and policy environment in place at the time with all required permits and consents being obtained prior to commencement.



- 14.2.10 In accordance with the <u>IEMA Materials and Waste in Environmental Impact</u> <u>Assessment guidance</u>¹, the relevant Study Areas for the materials and waste assessment are:
 - The **development Study Area** comprising of the Proposed Development footprint (i.e., the planning application boundary) and includes areas required for temporary access, site layout areas and for enabling works; and
 - The **expansive Study Area** extends to areas where construction materials are sourced and waste management infrastructure. It is the Applicant's aim to source materials locally (as much as practicable) and to utilise local waste management facilities. It is therefore considered that the expansive Study Area will cover Flintshire and the surrounding counties (i.e. Cheshire, Denbighshire and Wrexham).

14.3 Relevant legislation and planning policy

Relevant legislation

14.3.1 The applicable legislative framework in relation to material assets and waste is summarised in **Table 14.1**.

| | Document | Summary | |
|---|--|--|--|
| | Legislation | | |
| EC Landfill Directive (Directive 1999/31/EC on the landfill of waste). ² Establishe across the terms, suc ensure that also sets ta municipal v accepted f | | Establishes a framework for the management of waste across the European Community. It also defines certain terms, such as 'waste', 'recovery' and 'disposal', to ensure that a uniform approach is taken across the EU. It also sets targets for the diversion of biodegradable municipal waste and controls the nature of waste accepted for landfill (e.g. banning flammable wastes). | |
| | EC Waste Framework Directive (Directive 2006/12/EC on waste). ³ | The Waste Framework Directive (WFD) Directive 2006/12/EC on waste) contains the definition of waste. It also sets out basic waste management principles: it requires that waste be managed without endangering human health and harming the environment, and in particular without risk to water, air, soil, plants or animals, without causing a nuisance through noise or odours, and without adversely affecting the countryside or places of special interest. | |
| | The Clean Neighbourhoods and Environment Act 2005.⁴ | Outlines the responsibility of everyone working in the construction industry to ensure that all waste is disposed of properly. All employees need to be made aware that if | |

Table 14.1 Legislation relevant to material assets and waste

² <u>https://eur-lex.europa.eu/eli/dir/1999/31</u>

¹ <u>https://www.iema.net/resources/reading-room/2020/03/30/materials-and-waste-in-environmental-impact-assessment</u>

³ <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32006L0012</u>

⁴ <u>https://www.legislation.gov.uk/ukpga/2005/16/contents</u>

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| Document | Summary | |
|---|--|--|
| | they are tasked with waste disposal this must be carried out in accordance with the law, or they risk being fined. | |
| Environmental Permitting (England & Wales) Regulations 2016 (amended). ⁵ | The Environmental Permitting (England and Wales) Regulations (EPR) were created to standardise environmental permitting and compliance in England and Wales to protect human health and the environment. | |
| Environmental Protection Act 1990. | Part II of the Environmental Protection Act 1990 sets out a regime for the regulation and licensing of the acceptable disposal of controlled waste (any household, industrial and commercial waste) on land. Unauthorised or harmful depositing, treatment or disposal of controlled waste is prohibited and enforced by criminal sanctions. Further, there is a broad duty of care on importers, producers, carriers, keepers, treaters or disposers of controlled waste to prevent harmful activities. | |
| The Hazardous Waste (England and Wales) Regulations 2005 (amended in 2016). ⁷ | The Hazardous Waste Regulations control the storage, transport and disposal of hazardous waste to ensure it is appropriately managed and any risks are limited. An amendment in 2016 removed a requirement to register premises in England only. Premises in Wales must still be registered. | |
| Waste (England and Wales) Regulations 2011. ⁸ | The Waste Regulations transpose the Waste Framework Directive into English law. The regulations require businesses to confirm that they have applied the waste management hierarchy, introduce a new waste hierarchy permit condition and a two-tier system for waste carrier and broker registration. | |
| Environment Act 2021. ⁹ | The Environment Act intention is to protect and enhance our environment for future generations. It aims to clean up the country's air, restore natural habitats, increase biodiversity, reduce waste and make better use of our resources. To support the UKs transition to a more circular economy by incentivising people to recycle more. It encourages businesses to create sustainable packaging, makes household recycling easier and stops the export of plastics to developing countries. | |
| | The Act contains several provisions relating to waste which waste collection and waste disposal authorities should be aware of. | |
| | Recyclable household waste must be collected separately from other household waste, for recycling or composting. The Secretary of State | |

⁵ <u>https://www.legislation.gov.uk/uksi/2016/1154/contents/made</u>

⁶ <u>https://www.legislation.gov.uk/ukpga/1990/43/contents</u>

⁷ https://www.legislation.gov.uk/uksi/2005/894/contents/made

⁸ https://www.legislation.gov.uk/uksi/2011/988/contents/made

⁹ <u>https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted</u>

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| Document | Summary | |
|----------|---|--|
| | will have the power to add further recyclable waste streams. | |
| | • Recyclable household waste must be collected as individual streams unless certain exceptions apply. To rely on these exceptions, a waste collection authority must provide a written assessment stating it considers that separate collection: | |
| | Would not be technically or economically practicable; or | |
| | Has no significant environmental benefit | |
| | Dry recyclable waste streams must never be mixed with food or garden waste streams. | |
| | Food waste collection must take place at least once a week. | |

National Planning Context

14.3.2 At the national level, current planning policy in Wales is set out within the Welsh Government's <u>Planning Policy Wales Edition 12² (PPW)</u>. Key aspects of PPW relating to material assets and waste are detailed below:

Making Best Use of Material Resources and Promoting the Circular Economy

- 14.3.3 **Paragraph 5.11.3** states: 'The principles of the circular economy represent a move away from the current linear model of make, use, dispose, towards the reuse, repair and recycle of wastes which arise during development. The planning system facilitates materials recycling through advocating the use of secondary aggregates in construction but circular economy principles should underpin all developments.'
- 14.3.4 **Paragraph 5.11.7** states: 'Understanding and identifying the specific characteristics of a circular economy as far as this relates to planning will include early consideration in the preparation of development plans and when designing development proposals of the following:
 - promoting the use of existing buildings wherever possible;
 - designing out waste by using materials which are or can be remanufactured, refurbished, dissassembled and recycled or can be deconstructed and reused;
 - designing out waste through appropriate site selection and treatment;
 - encouraging a more adaptable and durable approach to building design using design choices which mean buildings are adaptable during their lifetime (as well as at the end of their use);
 - designing in reused materials and elements, such as recycled and secondary materials; and
 - recognising synergies and the multiple economic, environmental, social and cultural benefits which can be gained through appropriate materials choices.'

Design Choices to Prevent Waste



14.3.5 **Paragraph 5.12.1** states: 'Promoting the best choice of materials and efficiency of use will often go hand in hand. The use of fewer resources in the first place will help to avoid the creation of waste which cannot be effectively reused and waste prevention is key to the efficiency use of natural resources68. Opportunities to reduce or recycle waste as part of the design, construction and operation of new buildings should be identified when proposing plan strategies and policies, including any specific allocations, and at an early stage when designing development proposals.'

Design in Locally Sourced, Alternative or Recycled Materials

14.3.6 **Paragraph 5.12.9** states: 'Adequate facilities and space for the collection, composting and recycling of waste materials should be incorporated into the design and, where appropriate, layout of any development as well as waste prevention measures at the design, construction and demolition stage'.

Sustainable Waste Management Facilities

- 14.3.7 **Paragraph 5.13.4** states: 'The Welsh Government's policy for waste management is contained in Towards Zero Waste, Beyond Recycling and associated sector plans73. Planning authorities should, in principle, be supportive of facilities which fit with the aspirations of these documents and in doing so reflect the priority order of the waste hierarchy [refer to **Section 14.5.2**] as far as possible.'
- 14.3.8 **Paragraph 5.13.5** states: 'The waste hierarchy provides the key starting point for all types of waste management proposals. However, consideration of the hierarchy should be set against the wider social, economic, environmental and cultural factors which are relevant in any given case. Waste prevention and approaches towards encouraging reuse and recycling should be considered at an early stage as part of materials choices and design.'

Local Planning Context

14.3.9 Flintshire County Council's planning policies are detailed in the <u>Flintshire Local</u> <u>Development Plan 2015 – 2030</u>³ (LDP; adopted January 2023). The policies relevant to material assets and waste are as follows:

14.3.10 **Policy STR15: Waste Management** states that:

The LDP will facilitate the sustainable management of waste by:

i. Securing opportunities to minimise the production of waste in all development and ensuring the sustainable management of waste once it has been produced;

ii. Supporting proposals for waste management which move the management of waste up the waste hierarchy;

iii. Supporting proposals which reduce the impacts of existing waste management on communities and the environment;

iv. Directing new waste management facilities towards existing and allocated industrial sites which are suitable for waste management facilities;

v. Recognising that some types of waste facility may need to be located outside development boundaries;



vi. Protecting strategically important sites through the use of buffer zones where necessary; and

vii. Encouraging the co-location of heat producers and the development of heat networks through the identification of appropriate sites.

- 14.3.11 **Policy EN19: Managing Waste Sustainability** requires proposals for new developments to:
 - a. demonstrate how the production of waste will be minimised during all stages of the development and how wastes which do arise would be managed in a sustainable way, in accordance with the waste hierarchy.
 - b. demonstrate, where relevant, that adequate facilities and space for collection, composting and recycling of waste materials has been made.
- 14.3.12 Consideration of the key Planning Policy Wales and Local Development Plan policies relating to waste and material assets has been undertaken throughout the design process of the Proposed Development and is highlighted in this chapter.

14.4 Material Assets

14.4.1 IEMA guidance defines materials as:

"Materials are substances used in each lifecycle stage of a development, with a particular focus on the construction, operation and maintenance, and decommissioning or 'end of first life' (deconstruction, demounting, demolition and disposal) phases. The consumption of materials is generally considered to have adverse environmental impacts and effects.

'Materials' are physical resources that are used across the lifecycle of a development. Examples include concrete, aggregate, asphalt, bricks, ballast, mortar, glass and timber."

Construction Phase

- 14.4.2 The Proposed Development will require significant quantities of material and will generate waste during site preparation and construction phases.
- 14.4.3 Indicative amounts of materials for the construction of the Proposed Development are outlined in **Table 14.2**.



Table 14.2 Indicative amounts of material required for construction of theProposed Development

| Material | | Amount | Unit |
|--------------------|---|--------|----------------|
| Steel | Structural Steel | 4,547 | t |
| | Rebar | 1,882 | t |
| | Steel – equipment | 2,831 | t |
| | Total | 9,260 | t |
| Concrete | CCS Area paving | 2,200 | m ³ |
| | CCS Sump for TK-502 Recovery Tank | 56 | m ³ |
| | CCS Sump for TK-401 Spent Solvent Tank | 30 | m ³ |
| | CCS Concrete Basin | 1,000 | m³ |
| | CCS Piperacks – foundations | 360 | m ³ |
| | CCS Equipment structures – foundations | 240 | m ³ |
| | CCS Piling | 1,884 | m ³ |
| | Enabling works – Padeswood Hall access road, carpark and main car park | 1,965 | m ³ |
| | Enabling works – Bulk storage silo | 420 | m ³ |
| | Enabling works – Control building and labs | 150 | m³ |
| | Enabling works – Main entrance replacement offices | 135 | m ³ |
| | Enabling works – Weighbridge, dispatch and induction suite | 60 | m ³ |
| | Cement Plant works excl. heat exchangers | 2,202 | m³ |
| ~ | Heat exchangers and VRM | 1,670 | m ³ |
| | Total | 12,372 | m ³ |
| Earthworks/Roading | Haul Road, 700m long 6m wide | 6,300 | m ³ |
| | Reinstatement of haul road | 5,880 | m ³ |
| | New hardstanding area | 87,880 | m ³ |



| Material | Amount | Unit | |
|---------------|--|-----------|----------------|
| | Hardstand for carpark near main entrance | 4,397.4 | m ³ |
| | Access road to football pitch laydown area | 540 | m ³ |
| | Total | 104,997.4 | m³ |
| Miscellaneous | Earthworks/Civil | 41,200 | m³ |
| | Buildings | 2,000 | m² |
| | Piping | 25,900 | LM |

14.4.4 In summary, the Proposed Development will require:

- 9,260 tonnes of steel;
- 12,372 cubic metres of concrete;
- 104,997 cubic metres of earthworks/roading;
- 41,200 cubic metres of civil/earthworks;
- 2,000 square metres of buildings; and
- 25,900 linear metres of piping.
- 14.4.5 It is noted that the quantities detailed in **Table 14.2** are indicative only and will be refined during detailed design. Waste minimisation will be prioritised throughout the lifespan of the Proposed Development, through:
 - The provision of accurate design specifications;
 - The use of prefabricated and standardised materials where practicable; and
 - Materials designed to a specification to reduce the quantity of offcuts.
- 14.4.6 Where practicable, materials will be sourced locally, to minimise transportation and greenhouse gas emissions impacts.

Operational phase

14.4.7 Details of the material quantities used for the operation of the Proposed Development will be developed during the detailed design phase. The Site's existing Environmental Permit will be amended to include any additional substances (and quantities) required for the operation of the Proposed Development.



Significance of Effects

14.4.8 The key impacts and effects of material assets (<u>IEMA, 2020</u>¹⁰) are detailed in **Table 14.3**.

| Impacts | Adverse Effects | Assessment |
|--|---|---|
| Consumption of resources | Depletion of resources, resulting in the temporary or permanent degradation of the natural environment | Materials required for the construction of the Proposed Development will be refined throughout the detailed design phase, focusing on the reuse and recycling of materials (where practicable), reducing the quantities of materials required and as a result minimising the depletion of natural resources. |
| Release of greenhouse | The rise of average temperatures | Reducing material quantities required for the construction |
| gas emissions (through transportation) | Sea level rise leading to further coastal erosion and flooding | of the Proposed Development will be prioritised through the provision of accurate design |
| | Severe weather events are likely to increase | specifications and the use of prefabricated materials. This in turn will reduce transportation emissions (i.e. less delivery of materials) and less embodied carbon emissions from the construction materials. An assessment of potential release of greenhouse gases has been undertaken in Volume 2, Chapter 7: Climate Change. |
| Noise, disruption to traffic and other potential causes of nuisance | Increase in traffic movements and disruption | An assessment of the increased traffic movements associated with the construction of the Proposed Development has been undertaken in Volume 2 , Chapter 11: Traffic and Transport |

 Table 14.3 Key impacts and effects associated with material assets

¹⁰ <u>https://www.iema.net/resources/reading-room/2020/03/30/materials-and-waste-in-environmental-impact-assessment</u>

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- 14.4.9 The impacts and potential effects relating to the construction and operation of the Proposed Development (including material assets) has been assessed throughout the draft Environmental Statement in the appropriate factor assessments i.e. Volume 2, Chapter 7: Climate Change and Volume 2, Chapter 11: Traffic and Transport.
- 14.4.10 There will not be any significant effects beyond those considered in the chapters stated above and as detailed in **Table 14.3**; therefore it is proposed that material assets is scoped out a of full assessment in this draft Environmental Statement.

14.5 Waste

14.5.1 <u>IEMA guidance¹¹</u> defines waste as:

"Waste is defined by the Waste Framework Directive (Directive 2008/98/EC) as 'any substance or object which the holder discards or intends or is required to discard."

- 14.5.2 As required by <u>The Waste (England and Wales) Regulations 2011</u>¹² SI 2011 No. 988, all waste producers/holder are to demonstrate that the waste hierarchy has been considered in determining the most suitable waste management option. The management of material assets and waste will apply the following management hierarchy:
 - 1. Prevention (no waste produced);
 - 2. Preparing for re-use;
 - 3. Recycling;
 - 4. Other recovery, e.g., energy recovery; and
 - 5. Disposal.

¹¹ <u>https://www.iema.net/resources/reading-room/2020/03/30/materials-and-waste-in-environmental-impact-assessment</u>

¹² <u>https://www.legislation.gov.uk/uksi/2011/988/contents/made</u>

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Construction phase

- 14.5.3 The main aim of managing waste is to improve material/resource efficiency by promoting the economic use of construction materials and methods to ensure that the waste hierarchy is followed before any disposal options are explored.
- 14.5.4 Minimising waste will be considered at each stage of the detailed design phase including the use of prefabricated and standardised materials, prioritising recycled or reclaimed materials and the provision of accurate design specifications.
- 14.5.5 The OSWMP outlines key principles to minimise the generation of waste during the construction phase. It details:
 - The reuse of materials (where practicable);
 - Segregation of waste to minimise cross-contamination;
 - Calculating quantities of construction waste generated and setting minimisation/recycling targets;
 - The development of registers, audits and monitoring programmes; and,
 - Key roles and responsibilities.
- 14.5.6 The OSWMP details waste management measures for each stage of the construction phase: demolition, site preparation, construction, the management of raw waste, storage and the transportation of waste to recycling and disposal facilities.
- 14.5.7 Records of all waste movements off-site are to be retained. These records will outline how waste was managed and to demonstrate compliance with Section 34 of the Environmental Protection Act 1990¹³ (i.e., Duty of Care) in respect to construction waste.
- 14.5.8 A monitoring programme will be developed to:
 - Quantity raw material wastage and from which waste stream;
 - Record the methods by which the waste streams are being handled and stored;
 - Record the waste disposal routes used; and,
 - Record any improvements in current practices.
- 14.5.9 Regular inspections and audits of waste management records and onsite waste activities will be undertaken to ensure the measures outlined in the OSWMP and relevant legislation are complied with. Inspections and audits will be undertaken at regular intervals and all records/audits will be retained.
- 14.5.10 To ensure the waste management measure are effective; appropriate targets in relation to the minimisation and recycling of construction waste materials will be set by the Principal Contractor and the Applicant.

¹³ <u>https://www.legislation.gov.uk/ukpga/1990/43/contents</u>

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Operational phase

- 14.5.11 Little additional waste, to what is currently being produced, is expected to leave the Site as a result of the operational phase of the Proposed Development. The storage, management and disposal of waste will be controlled under the Site's Environmental Permit.
- 14.5.12 Waste produced from the Proposed Development will include:
 - Process waste e.g., degraded amine solvent from the Solvent Reclaimer, blowdown from flue gas quencher, flue gas condensate from quencher, cooling tower blowdown, used lubrication oils;
 - Chemical wastes (including spent lean amine solvent) from process facilities;
 - Air emissions: flue gas, vents, fugitives;
 - Wastewater treatment sludge;
 - Water: Stormwater and cooling water;
 - Hazardous process, air and oil filters, spent catalyst cartridges, and chemical containers, metal paint pots and aerosol cans;
 - Various special hazardous wastes and scrap equipment, such as lead acid batteries, dry cell batteries, bolts, gaskets, and valves;
 - Non-hazardous wood, paper bags and general packaging materials;
 - Non-hazardous domestic wastes, including paper, cans, plastic bottles and scrap glass, organic kitchen wastes and food remains; and
 - Non-hazardous general wastes from offices and workshops.
- 14.5.13 Quantities of waste generated by the operational phase are currently unknown. Further assessments into the proposed quantities and mitigation measures will be undertaken during the detailed design phase, where there will be a focus on applying the waste management hierarchy. Through the implementation of the waste management hierarchy, quantities of waste disposed of to landfill is unlikely to be significant.
- 14.5.14 A dedicated waste storage space will be provided onsite and will be developed through the detailed design phase. Any waste storage areas will be designed to ensure any potential risks are minimised.
- 14.5.15 Any waste that cannot be reused on-site, will be collected and disposed of by appropriate external waste management contractors.
- 14.5.16 Records of all waste movements off-site are to be retained. These records will outline how waste was managed and to demonstrate compliance with Section 34 of the Environmental Protection Act 1990¹⁴ (i.e., Duty of Care) in respect to operational waste.
- 14.5.17 Regular inspections and audits of waste management records and onsite waste activities during operation will be undertaken to ensure the measures

¹⁴ <u>https://www.legislation.gov.uk/ukpga/1990/43/contents</u>

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outlined in the OSWMP and relevant legislation are complied with. Inspections and audits will be undertaken at regular intervals and all records/audits will be retained.

Significance of Effects

14.5.18 The key impacts and effects of waste generation, storage and disposal (<u>IEMA,</u> <u>2020</u>¹⁵) are detailed in **Table 14.4**.

| Impacts | Adverse Effects | Assessment | |
|---|---|---|--|
| Generation and disposal of waste - Direct | Reduction in landfill capacity | Through the implementation of the waste management hierarchy; waste disposed of | |
| | Unsustainable use or loss of resources to landfill that results in the temporary or permanent degradation of the natural environment. | to landfill will be minimised (as much as practicable). The proposed quantities of waste generated by the Proposed Development are unlikely to be significant and therefore unlikely to have an adverse effect on landfill capacity or result in the unsustainable loss of resources. | |
| Release of greenhouse | The rise of average temperatures | The implementation of the waste management hierarchy | |
| gas emissions (through transportation and gas emissions Sea level rise leading to further coastal erosion and flooding transportation | will reduce the amount of waste disposed of at landfills; which will reduce transportation emissions (i.e., | | |
| management) – Indirect | Severe weather events are likely to increase | less traffic movements to waste facilities) and landfill emissions. | |
| Ecological impacts - Indirect | Habitat loss and fragmentation through the creation of new waste management facilities | Through the implementation of the waste management hierarchy; waste disposed from the Proposed Development to landfill will be minimised, therefore extending the lifespan of current landfills and reducing the need for new landfill sites. | |
| Visual impacts, noise, vibration | Windswept rubbish | Waste on site will be stored in dedicated waste storage | |

Table 14.4 Key impacts and effects associated with waste

¹⁵ <u>https://www.iema.net/resources/reading-room/2020/03/30/materials-and-waste-in-environmental-impact-assessment</u>

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| Impacts | Adverse Effects | Assessment |
|---|---------------------------------|---|
| and other potential causes of nuisance | Increase in vermin and birds | areas (i.e. covered and within bunded) to minimise the potential of waste causing nuisances. |

- 14.5.19 The impacts and potential effects relating to the operation of the Proposed Development (including waste management) has been assessed throughout the draft Environmental Statement in the appropriate factor assessments i.e. Volume 2, Chapter 7: Climate Change and Volume 2, Chapter 11: Traffic and Transport.
- 14.5.20 It is not expected that there will be any significant effects beyond those considered in the chapters stated above and referred to in **Table 14.4** therefore it is appropriate that waste is scoped out of the ES.

14.6 Summary

- 14.6.1 Adverse effects associated with material assets and waste will be managed/mitigated through the implementation of Site Waste Management Plan, and subsequently during operation through the environmental permit.
- 14.6.2 It is not expected that there will be any significant effects beyond those considered in the other chapters of the draft Environmental Statement and therefore material assets and waste are not further considered in the draft Environment Statement.



14.7 References

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