
Environmental Impact Assessment Scoping Report

Overwood ERF, Dovesdale Complex, Stonehouse

January 2021

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For and on behalf of Avison Young (UK) Limited

Executive Summary

Introduction

Viridor is seeking to obtain full planning permission for an Energy Recovery Facility ("ERF") on land at Overwood Farm, Dovesdale Complex, Stonehouse. The site is located within the administrative authority of South Lanarkshire Council in the ward of Larkhall.

The Applicant is in the process of undertaking a range of environmental surveys and technical assessments across the site to inform the design evolution of the proposed development. The information obtained to date has been used to inform the scope of the Environmental Impact Assessment ("EIA") as set out in this Scoping Report.

As part of the planning process, the Applicant will revoke the Carlisle Road Resource Recovery Facility ("CRRRF") planning permission (SLC ref. HM/10/0345), subject to the proposed development securing planning permission. Further detail is provided later within this Report.

Site Location

The proposed development area is broadly rectangular in shape (excluding the access road) and comprises approximately 6.2ha of land. The Site Location Plan is provided at **Appendix I**. Geographically, the proposed development area is located c. 1.9km southeast of Stonehouse; c. 1.8km northwest of Blackwood/Kirkmuirhill; and c. 3.5km south of Larkhall.

The application boundary has increased to include several adjacent fields and measures c. 53ha. These fields have been included in the event that any necessary ecology and landscaping mitigation measures are identified which would form part of the development. The specific locations for any mitigation would be identified through the environmental assessment process which is currently underway. It is therefore anticipated the final application boundary would be refined in due course.

The Proposed Development

The proposed development will comprise of the following elements:

- An ERF;
- Buildings and structures ancillary to the ERF;
- Groundworks and reprofiling;
- Surface Water Attenuation; and

- Landscaping, Bunding and Ecological Enhancements.

The description of development is as follows:

“Construction and operation of an energy recovery facility for treatment of municipal, commercial and industrial wastes, including ancillary buildings, structures (including stack), parking, CHP enabling works, hardstanding, ground reprofiling and landscape works.”

Environmental Impact Assessment Analysis and Approach

The Applicant's design team are in the process of undertaking a suite of assessments to inform the proposed approach and methodology as set out in this Report. The baseline constraints and the likely environmental effects of the proposals have identified the potential for significant environmental effects in the following technical disciplines:

- Landscape and Visual;
- Ecology;
- Archaeology and Cultural Heritage;
- Traffic and Transport;
- Air Quality;
- Noise; and
- Climate Change.

A range of other technical areas were reviewed during preparation of this Report. Whilst there would be impacts, it is not considered these would be significant, such that it warrants assessment in the EIA. These impacts can be mitigated through standard, commonplace measures. Notwithstanding this, a series of standalone assessments will also be submitted with the planning application to ensure the Council has the full complement of technical information and evidence when determining the planning application.

Summary

In summary, a comprehensive but proportionate EIA is proposed to assess the environmental effects of the proposed ERF on the environment. The purpose of EIA is to focus on those areas where there is potential for significant environmental effects, rather than an all-encompassing environmental report. This allows the assessment to be robust, direct, accessible and appropriate in size and extent.

Further detail and analysis regarding the EIA Scoping process is provided within the main body of this Report.

1. Introduction

- 1.1 Viridor (hereafter referred to as the 'Applicant') is seeking to obtain full planning permission for an Energy Recovery Facility ("ERF") on land at Overwood Farm, Dovesdale Complex, Stonehouse (hereafter referred to as the 'site'). The site is located within the administrative authority of South Lanarkshire Council ("SLC") in the ward of Larkhall.
- 1.2 The Applicant is in the process of undertaking a range of environmental surveys and technical assessments across the site to inform the design evolution of the proposed development. The information obtained to date has been used to inform the scope of the Environmental Impact Assessment ("EIA") as set out in this Scoping Report.
- 1.3 As part of the planning process, the Applicant will revoke the Carlisle Road Resource Recovery Facility ("CRRRF") planning permission (SLC ref. HM/10/0345), subject to the proposed development securing planning permission. Further detail is provided later within this Report.

Requirement for Environmental Impact Assessment

- 1.4 The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (hereafter referred to as the 'EIA Regulations') require that for certain planning applications, an EIA must be undertaken. Schedule 1 of the EIA Regulations lists developments that always require EIA and Schedule 2 of the EIA Regulations list developments that may require EIA if it is considered that they could give rise to significant environmental impacts.
- 1.5 It has been assumed for the purposes of the application that a statutory EIA will be required and therefore the Applicant will be undertaking an EIA in respect of the proposals. It is accepted that the development falls within Schedule 1, (10) 'Waste disposal installations for the incineration or chemical treatment (as defined in Annex I to Directive 2008/98/EC under heading D9) of non-hazardous waste with a capacity exceeding 100 tonnes per day'.

EIA Scoping

- 1.6 Under Regulation 17 of the 2017 EIA Regulations, a person who is minded to make an EIA application may ask the relevant planning authority to state in writing their opinion as to the information to be provided and subsequently reported in an Environmental Impact Assessment Report ("EIAR"). The scoping process is an integral part of undertaking an EIA and its purposes is to provide relevant background information about the site, the proposed development, key environmental issues and the approach for the assessment of potential environmental effects.

1.7 This Scoping Report outlines the proposed development and identifies issues that will be assessed by the EIA and reported in the EIAR that will accompany the planning application. The objectives of the scoping process are to:

- Provide a detailed description of the development, including its physical characteristics and land use requirements;
- Identify key environmental topics that the EIA will consider;
- Define the extent to which environmental topics will be investigated;
- Allow consultation with the LPA, and Statutory and Non-Statutory consultees; and
- Provide a mechanism for agreeing the content and methodology of the EIA with stakeholders at an early stage in the process.

Structure of Report

1.8 The report comprises the following sections:

- **Chapter 2: Site Context and Description** – This section describes our understanding of the current conditions of the site and surrounding area.
- **Chapter 3: Description of Development** – This section provides an overview of the likely proposals and the parameters to inform the EIA.
- **Chapter 4: Approach** – This section provides the proposed approach to undertake the EIA.
- **Chapter 5: Alternatives** – This section sets out the approach to the alternatives assessment (design evolution, alternative sites and no development).
- **Chapter 6 - 12: Scoped-in Environmental Assessment Topics** – These sections outline the proposed methodology for each technical assessment scoped-in to the ES.
- **Chapter 13: Scoped-out Environmental Assessment Topics** – This section outlines those environmental topics which have been scoped-out of the EIAR due to the absence of significant environmental effects.
- **Chapter 14: Summary and Conclusions.**

1.9 It should be noted that the Scoping Report has been produced using currently available information in relation to the site and the proposed development. However, the design of the proposed

development is still evolving and will continue to do so throughout the EIA process. This is important as it allows an iterative design process to be followed which takes account of environmental issues and allows for the incorporation of mitigation measures into the proposals. Therefore, changes to the proposals between the scoping of the EIA and the submission of the application should not necessarily require the EIA to be fully re-scoped. The assessment scopes presented here relate to the general principles of the proposals rather than the specifics; hence the scope can accommodate minor amendments to the site and the proposals. If the scheme changes materially or if the site expands significantly in area, further scoping may be required.

The EIA Project Team

1.10 The EIA will be compiled using a wide range of sources and with inputs from competent experts. The organisations and their roles in the project team are listed in Table 1.1 below.

Table 1.1: The EIA Project Team

Discipline	Firm
Landscape and Visual	Tyler Grange
Ecology	Ramboll
Archaeology and Cultural Heritage	CFA Archaeology
Traffic and Transport	Pell Frischmann
Air Quality	Fichtner Consulting Engineers
Noise	Ramboll
Climate Change	Fichtner Consulting Engineers
Planning and EIA Coordination	Avison Young

2. Site Context and Description

2.1 This section sets out the geographical context of the site and summarises potential environmental constraints and sensitive receptors in their vicinity.

Site Location

2.2 The proposed development area is broadly rectangular in shape (excluding the access road) and comprises approximately 6.2ha of land at Overwood Farm, Dovesdale Complex, Stonehouse. The Site Location Plan is provided at **Appendix I**. The site is located within the administrative authority of SLC.

2.3 Geographically, the site is located c. 1.9km southeast of Stonehouse; c. 1.8km northwest of Blackwood and Kirmuirhill; and c. 3.5km south of Larkhall.

2.4 The B7078 (Carlisle Road) forms the vehicular access point to the east of the site, which in turn connects to the A71 and Junction 8 of the M74 c. 2.6km north of the site. The M74 is the principal highways route through the central spine of Scotland, providing connectivity between Carlisle and Glasgow, and access to the east-west motorway network in Scotland.

2.5 The application boundary has increased to include several adjacent fields and measures c. 53ha. These fields have been included in the event that any necessary ecology and landscaping mitigation measures are identified which would form part of the development. The specific locations for any mitigation would be identified through the environmental assessment process which is currently underway. It is therefore anticipated the final application boundary would be refined in due course.

Site Characteristics¹

2.6 The site comprises an access track and agricultural land used for pastoral farming. The site is bound by field hedgerows on all sides, and a dense woodland to the west, beyond which is Cander Water. A series of former farm buildings are located to the immediate northwest of the site.

2.7 The nearest residential receptor is located c. 520m south of the site. Overwood Farm buildings are located immediately north of the site. However, these are due to be demolished.

2.8 There are a range of waste, industrial and energy uses within the vicinity of the site, including:

- A landfill receiving inert, road construction, green and gully waste located c. 270m north;

¹ All measurements throughout the Report are taken from the proposed development extent.

- A waste transfer station located c. 230m north; and
 - A wind turbine with a hub height of 50m and a height to blade tip of 77m located c. 330m southeast.
- 2.9 The topography of the site varies from 168m Above Ordnance Datum ("AOD") in the southeast to 149m AOD in the northwest.
- 2.10 Features of a site and surrounding area may form a constraint to development or be identified as a sensitive receptor that may be affected by the site. Identifying such constraints and receptors early in the design process ensures that mitigation measures are designed into the proposals progressively from the outset and are fully integrated into the design where appropriate. Details on specific environmental constraints and opportunities found at and around the site are presented within the technical sections of this document (see Chapters 6 – 13).

CRRRF Planning Permission

- 2.11 A planning application was submitted by Scotgen (South Lanarkshire) Ltd (SLC ref. HM/10/0345) on 5 July 2010 for the following uses:

"Construction and operation of a waste sorting and resource recovery facility, with capacity to process up to 150,000 tonnes of waste per annum."

- 2.12 The application was subsequently approved on 25 February 2011.
- 2.13 The CRRRF is located approximately 500m northeast of the proposed ERF location.
- 2.14 The facility was designed to process municipal and commercial wastes. The facility secured permission to treat and process 150,000 tpa with all waste being initially processed through a Materials Recovery Facility ("MRF"). The non-recyclable materials would be separated in the MRF and c. 80,000 tpa would be treated by the ERF. The recyclable materials, which would have included some biodegradable material would be bulked and exported from the site for further processing.
- 2.15 The CRRRF would have produced c. 10MW of electricity or up to 14MW thermal which is equivalent to powering 16,000 homes.
- 2.16 The planning permission has been materially implemented and therefore remains extant.
- 2.17 If approved the proposed development would include a legal agreement which would revoke this application so it could not be built out.

3. The Proposed Development

3.1 This Chapter sets out an overview of the proposed development and the various components required to deliver the scheme. These development parameters have informed the proposed scope of the technical assessments which form part of the EIA.

3.2 The proposed development will comprise of the following elements:

- Buildings and structures ancillary to the ERF, including a stack;
- Groundworks and reprofiling;
- Surface Water Attenuation; and
- Landscaping, Bunding and Ecological Enhancements.
- The description of development is as follows:

“Construction and operation of an energy recovery facility for treatment of municipal, commercial and industrial wastes, including ancillary buildings, structures (including stack), parking, CHP enabling works, hardstanding, ground reprofiling and landscape works.”

The ERF

3.3 A dual stream ERF will be delivered with a design capacity to treat up to 330,000 tonnes per annum (“tpa”) of non-hazardous, non-recyclable, residual waste material.

3.4 A mixture of Municipal Solid Waste (“MSW”) and Commercial and Industrial (“C&I”) will be the main sources of waste for the facility.

3.5 Towards the centre of the building will be the steam turbine generator. This is designed to utilise high pressure steam from water heated by the combustion processes and generate approximately 30.7 Megawatts (“MW”) of electrical power which will be exported to the local electrical distribution network (equivalent of powering approximately 82,000 homes each year the ERF operates).

3.6 The ERF building will be up to c. 50m in height relative to the ground level. It is anticipated there will be a cut and fill exercise to accommodate the proposals, with the proposed Finished Floor Level (“FFL”) anticipated to be 152m AOD.

- 3.7 The ERF building will house the following plant process equipment: the waste reception system consisting of access ramp; waste reception hall and storage bunker; one process line that includes: a waste feed crane and grab, furnace feed hopper, grate, furnace / combustion chamber, auxiliary burners, boiler, flue, gas treatment plant and one stack; together with residue handling systems, a feed water treatment system, heat station, a diesel generator, switchroom, control and monitoring systems, workshops, mechanical stores, and office, welfare and educational facilities.
- 3.8 The c. 90m stack will be located at the northern end of the ERF building. The final height of the stack will be informed by the air quality assessment.

Buildings and Development Ancillary to the ERF

- 3.9 There will be a range of buildings, structures and infrastructure provided to deliver the proposals and operate the ERF. These include:
- A maintenance shutdown / 'outage' area;
 - Electrical distribution network (refer to grid connection below);
 - Telecommunications and data systems;
 - Drainage systems for surface water, foul water and potable / mains water;
 - Security measures; and
 - Lighting.

Parking

- 3.10 A range of parking will be provided on site including parking for staff, visitor bays, cycle spaces and minibus parking. In line with planning policy, electric vehicle charging points will be provided at the site.

Access

- 3.11 All vehicles will access the proposed ERF from the M74 and the B7078. The planning application would be supported by a legal agreement which secured a routing agreement that precluded HGV's entering or leaving the site from the south.

Grid Connection

- 3.12 A 33KV connection to the grid will need to be provided to the north of the site at Hamilton. This will not form part of the proposed development as it will be delivered through a separate process under Permitted Development rights. However, it will be assessed as part of the EIA as it forms part of the development project.

Landscaping and Ecological Enhancements

- 3.13 A comprehensive landscaping and ecological management strategy has been integrated with the design evolution of the proposals. The composite landscaping strategy will be agreed with SLC through a series of pre-application design discussions.

CRRRF Planning Permission

- 3.14 As set out previously, it is intended to revoke the CRRRF planning permission. This is to ensure that two ERFs are not located in close proximity.

ERF Operations

- 3.15 The following aspects of the ERF's operational requirements will be set out in detail in the EIA and planning application:
- Operating Hours;
 - Staffing Requirements;
 - Vehicle Movements and Trip Distribution; and
 - Community Relations.

ERF Construction

- 3.16 The site's preparation, enabling works and construction process will be set out in detail in the EIA and planning application.
- 3.17 The description of the proposed development section will also include information on those mitigation measures that have been designed-in to the proposals, having been identified as necessary through the EIA process. These features of the proposals will be considered to be part of the development that is subject to the final assessment of impacts presented in the EIAs. Where mitigation measures are not of a nature that they can be designed into the scheme, they will be

specified separately. Further detail relating to the approach to mitigation is presented in Section 4 of this Scoping Report.

- 3.18 The elements set out above are currently anticipated to form part of the proposals, the details will be informed and refined through the EIA process and the continuous process of consultation with the LPA and key stakeholders.

4. Approach

- 4.1 This chapter describes the methodology used to undertake the EIA in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (SI 2017/102) and Planning Advice Note: Environmental Impact Assessment (1/2013).
- 4.2 The chapter begins with a description of the general approach to assessment and EIA regulatory compliance, including how the planning application and EIA are linked. EIA procedure and methodology is presented, then the spatial and temporal scope of the assessment is discussed.
- 4.3 Following this, the criteria used for impact prediction, assessing significance and implementing and securing mitigation measures are explained, along with any limitations and assumptions. With regard to the methodologies and assumptions for the technical assessments, each chapter has its own specific assessment methodology and assumptions, which are explained within the relevant sections.

EIA Procedure and Methodology

EIA and Regulatory Compliance

- 4.4 The EIA Regulations, supported by precedents in UK case law, have established the legal framework for the process of EIA and the contents of EIAs. The planning application will be submitted in full and the application description of development, plans and schedule of accommodation provides sufficient detail to identify, predict and assess the significance of any potential environmental impacts.

EIA Assessment Parameters

- 4.5 The EIA will be based on the written description of the proposed development including construction timescales and construction management plans, the site red line application boundary (**Appendix I**) and the quantum of development (see: Chapter 5: The Proposed Development). These parameters, along with detailed plans and elevations submitted for approval as part of the application, allow the likely significant effects of the proposals to be fully assessed and appropriate mitigation measures secured.
- 4.6 The scope of the assessments has been based principally on the proposed location of the ERF. As set out previously, additional land has been included within the red edge in the event that mitigation measures are identified during the EIA process.

Scope of the EIA

4.7 The site constraints analysis has identified several studies which have the potential to generate significant environmental effects. Accordingly, the following assessments have been scoped-in to the EIA:

- Landscape and Visual;
- Ecology;
- Archaeology and Cultural Heritage;
- Traffic and Transport;
- Air Quality;
- Noise; and
- Climate Change.

4.8 The approach and methodology for each of the technical areas listed above is presented within Chapters 6 – 12 of this report.

4.9 A number of other technical topics have been scoped-out of the EIA and identified as not significant. Further analysis and justification for this approach is presented in Chapter 13.

Consistency

4.10 To assist the reader in understanding the technical assessments a consistent approach will be adopted throughout the EIA to ensure that likely significant effects are identified and evaluated in a transparent manner. Each environmental assessment topic will adopt the following approach:

- Baseline Assessment and Identification of the Study Area;
- Identification of Sensitive Receptors;
- Identification of Embedded Mitigation Measures;
- Identification of Potential Effects during Construction and Operation of the Proposed Development (including indirect, direct, adverse and beneficial);
- Assessment of Impact Significance;

- Identification of Impact Significance;
- Identification of Mitigation Measures;
- Assessment of In-combination Effects with Grid Connection;
- Assessment of Residual Effects; and
- Assessment of Cumulative Effects.

Spatial and Temporal Scope of Assessment

4.11 The spatial extent of the EIA is described by the geographical area potentially affected by the proposed schemes and will need to take into account:

- The physical extent of the proposed schemes defined by the limits of land to be used both during construction and operation (temporary and permanent);
- The position of sensitive receptors within or outside of the site boundaries; and
- The nature of the baseline environment and the way in which the impacts are likely to be propagated.

4.12 The effects for each of the disciplines are likely to extend to different spatial extents. The spatial scope for each discipline will be described within each of the topic chapters as required.

4.13 The environmental baseline studies undertaken as part of the EIA consider the current conditions of the site. Therefore, each technical chapter will contain a description of the relevant study area that may be affected by the scheme.

4.14 The impact assessment will be made against existing baseline conditions. The assessment will address effects arising from the construction and operation of the proposed schemes as follows:

- Construction effects may arise directly from construction activities but also from the temporary use of land (e.g. construction sites) or from associated changes in traffic movements; and
- Operational effects may arise from the permanent operational activities and ongoing use of the proposed development and new infrastructure.

- 4.15 The significance of the effects that will arise in each of these phases is based on any changes compared to the baseline conditions (i.e. those conditions which would exist if the proposed scheme did not go ahead).

Impact Prediction

- 4.16 Schedule 4 of the 2017 EIA Regulations states an EIA should include:

"A description of the likely significant effects of the development on the environment resulting from, inter alia:

(a) the construction and existence of the development, including, where relevant, demolition works;

(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;

(c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;

(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);

(e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;

(f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;

(g) the technologies and the substances used.

The description of the likely significant effects on the factors specified in regulation 4(3) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project including in particular those established under Council Directive 92/43/EEC and Directive 2009/147/EC."

4.17 Predictions of environmental impacts are carried out using quantitative methods, or in some cases, qualitative terms using expert opinion. All assumptions used and any areas of uncertainty are defined in the relevant chapters.

4.18 The following types of effect are considered:

- Direct impacts that arise from activities that form an integral part of the proposed scheme (e.g. new infrastructure/land take);
- Indirect impacts that arise from activities not explicitly forming part of the proposed scheme (e.g. noise changes due to changes in road traffic flows on existing roads resulting from the operation of the scheme);
- Secondary impacts that arise as a result of an initial effect of the proposed scheme;
- Permanent impacts that result from an irreversible change to the baseline environment (e.g. land take) or impacts which persist for the foreseeable future (e.g. visual impact);
- Temporary impacts that persist for a limited period only, for example, due to particular construction activities (e.g. noise from construction plant);
- Beneficial impacts that have a positive influence; and
- Adverse impacts that have a negative influence.

Significance Criteria

4.19 The significance of effect is assessed by looking at what the changes will be against the existing or predicted baseline as a result of both the construction and operation of the schemes. It is a product of the sensitivity of the receptor, and the magnitude of the impact upon it. The criteria used to define the sensitivity of a receptor and magnitude of impact is provided in Table 4.1 and Table 4.2 below. These criteria are used as a guide only and the specific criteria for each technical assessment will be presented within each chapter.

Table 4.1: Description of the Sensitivity of an Environmental Receptor

Sensitivity	Typical Descriptors
Very High	Very high importance and rarity, international scale and very limited potential for substitution.
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	High or medium importance and rarity, regional scale, limited potential for substitution.
Low	Low or medium importance and rarity, local scale.
Negligible	Very low importance and rarity, local scale.

4.20 Descriptions of the magnitude of impact are provided in Table 4.2 below.

Table 4.2: Description of the Magnitude of an Impact

Magnitude of Impact	Impact Type	Typical Descriptors
Very Large	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements
	Beneficial	Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality
Large	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality
Medium	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring

Small	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements
No Change	N/A	No loss or alteration of characteristics, features or elements; no observable in either direction.

Identification of Significant Effects

4.21 Based on the sensitivity and magnitude criteria set out above, specific significance criteria will be used in each technical assessment and these will be explained in the methodology sections within each technical chapter. Often, these are based on clearly defined criteria from published best practice guidance. However, wherever possible, the following terminology will be utilised:

- Major Beneficial;
- Moderate Beneficial;
- Minor Beneficial;
- Negligible;
- Minor Adverse;
- Moderate Adverse; and
- Major Adverse.

4.22 Where potential environmental impacts are found, further to assessment which are of no significance, they are said to have no effect.

4.23 The assessment of likely significant effects will be undertaken for all potential effects to determine their relative importance. This has taken into account the following considerations:

- Magnitude (size of impact);
- Sensitivity of the surrounding environment and receptors;
- Spatial extent (size of the area affected);
- Duration (short, medium or long term);

- Nature of the effect (direct or indirect, reversible or irreversible);
- Inter-relationships and combination effects;
- International, national or local standards; and
- Relevant policy guidance.

Mitigation

4.24 The development of measures designed to avoid, reduce or offset significant adverse environmental effects associated with a proposal is one of the key elements of EIA. Measures to mitigate environmental effects of the proposed development can take two forms;

- **Embedded mitigation** – is the consideration of mitigation embedded into the fixed scheme (as per the application drawings) with the aim where possible, of avoiding, reducing or offsetting significant adverse effects, determined during the course of the assessment; and
- **Further mitigation** – is the mitigation that is not embedded into the proposals and which requires further action than already proposed.

4.25 Where environmental mitigation measures have not been integrated into the proposals through design, it is expected that all other requisite measures or ‘further mitigation’ will be secured by appropriate planning conditions or obligations.

Cumulative Effects

4.26 The assessment of cumulative effects is set out in two forms. The first relate to the impacts of the proposed development in conjunction with other developments in the area. These developments should be existing, consented or reasonably foreseeable in terms of delivery and should be located within a realistic geographical scope where environmental effects could combine to create a more significant effect on a particular sensitive receptor. The second type of cumulative effect is that of the combination of the various types of impacts from the proposed development. These are referred to as synergistic effects.

4.27 The cumulative site search was based on the following criteria:

- A 3km isochrone from the proposed development.
- Developments classified as ‘Major’ developments in accordance with the Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009.

- Committed developments defined as those under construction or subject to planning permission within the previous 5 years from January 2021.
- 4.28 Those developments which met the above criteria within the area of search have been scoped-in to the cumulative effects assessment. Not all of the cumulative schemes identified have the potential to result in cumulative effects in combination with the proposed development. Therefore, each technical chapter of this Report sets out where a scheme has been scoped-out of the cumulative effects assessment with corresponding reasoning to justify this approach. Table 4.3 sets out the proposed cumulative schemes.
- 4.29 A number of schemes have received planning permission within the above search criteria and have since been implemented. These are set out below and form part of the baseline assessment:
- HM/17/0184 - Variation of Conditions 3 and 4 of Planning Permission HM/14/0283 relative to time limitations to extend consent until 23rd December 2040.
 - CL/16/0138 - Erection of a 119m wind turbine (height to blade tip) and associated construction compound, substation, access track and hardstanding.
 - HM/17/0024 - Extension to aggregate storage shed to provide waste transfer facilities (Section 42 application to amend condition 1).
 - HM/16/0243 - Erection of 21 metre telecoms lattice mast and associated equipment.
- 4.30 As set out previously , the CRRRF planning permission will be revoked should the current proposals be granted planning permission. As such, it is not proposed to include the CRRRF within the baseline assessment or as a cumulative site. A comparison will be undertaken within the Planning Statement to consider the impacts of the CRRRF in comparison with the effects of the current ERF proposed by the Applicant. The EIA will focus solely on the development which is sought for approval.

Table 4.3: Proposed Cumulative Sites List

No.	Planning Ref.	Status	Location	Proposals	Distance & Direction
1.	P/19/1258	Awaiting decision	Draffanmarshill Draffan Road Lanark South Lanarkshire	Erection of 180m (to tip) wind turbine	1.6km east
2.	P/20/1670	Awaiting decision	Dovesdale Farm Carlisle Road Stonehouse Larkhall ML9 3PR	Extension to existing infill site and amendment to extend the infill period including phased restoration over 36 year period	240m north
3.	P/18/1515	Approved – November 2019	Site Of Former Stonehouse Hospital Strathaven Road Stonehouse	Approval of Matters Specified in Conditions 1, 2, 5, 6, 7, 8, 10, 12 and 13 of planning permission in principle HM/16/0174 in relation to site layout, house design, road layout and pedestrian links, drainage, phasing etc.	2.4km west

- 4.31 Each technical chapter within the EIA will include a cumulative effects assessment either integrated with the assessment at the outset or at the end of each assessment. The approach will be bespoke and subject to the appropriateness for each technical discipline.

5. Alternatives

5.1 A statutory requirement for inclusion in an EIA is the reporting of the consideration of alternatives in the development of a proposal. Schedule 4 of the EIA Regulations states that an EIA is required to provide:

“A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.”

5.2 Accordingly, four options and considerations will be presented in the EIA:

- **The ‘no development’ option** – This section will aim to identify the environmental impacts both adverse and beneficial that would not be realised in the absence of the proposals.
- **Alternative Sites** – An Alternative Sites Assessment will be submitted with the planning application and this will inform this aspect of the assessment.
- **Alternative Technologies** – This section will review the technology that is proposed to be implemented at the ERF against other available technologies determining the most suitable technology to be implemented.
- **Alternative Site Layouts, Building Design and Materials** – This section will present an overview of the design evolution of the scheme and how the preferred design has been arrived at as part of the EIA process and engagement with key stakeholders.

6. Landscape and Visual

Introduction

- 6.1 Effects on the landscape can arise from direct changes to physical elements of the receiving landscape, which may affect its features, character and quality; or from indirect effects on the character and quality of the surrounding landscape. Visual effects can result if the development changes the character and quality of people's views. Landscape and visual effects are linked, but have different attributes, so are considered as two elements.
- 6.2 This scope has been prepared by Tyler Grange.

Baseline Conditions

- 6.3 The site is located in South Lanarkshire, accessed off Carlisle Road B7078, and lies immediately adjacent to the abandoned Overwood farmstead, and to the immediate south of Wm Hamilton & Sons Ltd, who operate an inert landfill, haulage company and recycling and waste transfer facility. The site is approximately 2km to the south-east of Stonehouse, a linear village that runs along the southern edge of the Avon Valley and extends along the A71.
- 6.4 The site comprises one field and part of three adjacent fields which are defined by gappy hedgerows. To the west it is bound by a post and wire fence, with the wooded Cander Water corridor beyond. It comprises west-facing pasture used for sheep grazing. Overhead wires run along the western part of the site and along the access track. The site is accessed off Carlisle Road B7078, at approximately 183m Above Ordnance Datum (AOD), dropping down to 149m AOD at Overwood Farm.
- 6.5 The gently undulating landform surrounding the site varies between approximately 149m and 168m AOD. To the south-west, the landform rises up to Kype Muir and Auchrobert Hill at 368m and 346m AOD respectively. A number of water courses thread through the landscape. To the north-west of the study area, the Avon Valley is a narrow, steep sided valley that carves a meandering path through the landscape from south-west to north-east. The Clyde Valley is a broader, deeper valley running from south-east to north-west, to the north-east of the Site.
- 6.6 Beyond the villages and towns, farmsteads are frequent, and the landscape has a settled and managed character. Agricultural land use is predominantly pasture for sheep, with occasional cow herds. The land has a history of mining and quarrying; and infrastructure associated with the urban areas is prominent in the landscape, frequently following elevated positions along local ridgelines. The M74 and Carlisle Road B7078 run along a local ridgeline to the immediate north-east of the Site.

- 6.7 There are numerous small wind farms and individual wind-turbines within the study area. High voltage overhead powerlines extend from north to south, between Glassford and Stonehouse, and head south-east beyond the study area. Dismantled railway lines and disused quarries influence the pattern of the landscape and vegetation. A dismantled railway line between Stonehouse and Blackwood / Kirkmuirhill is still legible in the landscape, particularly where embankments and bridges are present. Historic mapping reveals that there was a quarry at Overwood, served by the Overwood Mineral Branch, which extended past Cander-Mains and Dovesdale Farm. The former quarry is now an inert landfill.
- 6.8 Outwith the incised river valleys, the landscape has a predominantly open character. Large, regular fields are defined by hedgerows and, increasingly, post and wire fences. Tree cover is limited to patchy, windswept boundary trees, occasional shelter belts and small woodlands frequently associated with farmsteads. Native woodland typically follows water courses and there are plantation woodlands along road corridors and on higher ground.

Landscape Character

- 6.9 The site lies within the Landscape Character Type (NatureScot 2019 Landscape Character Assessment review) and Landscape Character Area (South Lanarkshire 2015 Landscape Character Assessment) 'Plateau Farmland' and more specifically the 'Plateau Farmland Windfarm' subtype.
- 6.10 The LCT/LCA occurs on the lower slopes of the Plateau Moorland areas encircling Glasgow and the Conurbation and is characterised by its transitional location between the sheltered landscape of Rolling Farmland and Broad Valley Lowland and the exposed uplands and moorlands.
- 6.11 With respect to the key characteristics, the site and its context corresponds with a gently undulating landform and there is a dominance of pastoral farming. Limited and declining tree cover is typical of the site and its surroundings, as is the visual influence of "settlements, transport infrastructure and mineral working". The settlement of Stonehouse is visually prominent. The landscape character in the immediate context of the site is also highly influenced by former mining and quarrying activities.
- 6.12 With respect to perception, the NatureScot assessment states that there are "wide views across this open, transitional Landscape Character Type, but few visual foci"; and the area appears in the foreground when seen in views from or towards the adjacent moorland and hills, and the edge of this LCT are visible from the Clyde Valley.

Landscape Designations

- 6.13 There are no qualitative landscape designations, core paths, listed buildings or protected landscape features within or immediately adjacent to the site. However, the site lies within the South Lanarkshire Green Belt that encloses settlements including Strathaven, Larkhall and Stonehouse.
- 6.14 Cander Moss SSSI is located approximately 160m to the north-east of the site boundary on Carlisle Road B7078, beyond the M74. With respect to heritage features, the nearest listed buildings are located within and immediately adjacent to Stonehouse, approximately 2km to the north-west. There are no Scheduled Monuments or Inventory Gardens and Designed Landscapes within 5km of the site.
- 6.15 The Middle Clyde Valley Special Landscape Area ("SLA") is located approximately 2.1km to the north of the site, where it extends along the Avon Water around Glassford; however, there is very limited intervisibility due to the incised and wooded nature of the intervening landscape.

Transport and Access

- 6.16 With respect to the access and transport network within and surrounding the site, the notable transport routes include the busy M74, Carlisle Road B7078, the A71, Strathaven Road B7086 and a network of local access roads. The Glasgow to Carlisle National Cycle Route National Cycle Route 74 runs along Spital Road to the west of the site.
- 6.17 There are several core paths in the vicinity of the site, including:
- HM/2519/1 that runs along Watstone Road and links onto Spital Road to the south;
 - HM/2522/1 that links Spital Road and High Langridge; and
 - HM/2523/1, HM/2524/1 and HM/2521/1 that link Udston Road and Dykehead Road via High Langridge and Bogside Farms, the latter of which runs along the alignment of the Roman Road.
- 6.18 The core path network is supplemented by a local network of wider network routes, including off and on-road footpaths.

Visual Context

- 6.19 Visually, the local context is relatively open, but with undulations and topography that provide secluded and more vegetated valleys, limiting the overall extent of visibility. Scattered farmsteads, settlement, agricultural development and other commercial / industrial development is a visible

component of the landscape. Also notable is the distribution of vertical structures, including telecommunication masts and wind turbines.

- 6.20 The South Lanarkshire Council 'Landscape Capacity Study for Wind Energy' locates the site within area '5c' which is deemed to have a 'medium' capacity to accommodate a turbine between a height of 50 to 80m. A wind turbine is located directly south of the site with a hub height of 50m and height to blade tip of 77m (Application ref. HM/14/0283).
- 6.21 The study identifies no key views or important vistas that require consideration of safeguarding.

Approach and Methodology

- 6.22 The aim of the assessment will be to identify, as far as is reasonably practical, the nature of the landscape changes that will arise from the proposed development to assess any significance and to make appropriate recommendations for the future mitigation of any resulting effects. The report will assess the effects of the proposed development on discrete character areas and/or character types comprising features possessing a particular quality or merit.
- 6.23 The Landscape and Visual Impact Assessment ("LVIA") will be undertaken in accordance with the following methodology:
- The revised and updated Guidelines for Landscape and Visual Impact Assessment ("GLVIA"), Third Edition (Landscape Institute and IEMA, 2013);
 - An approach to landscape sensitivity assessment – to inform spatial planning and land management, Natural England, 2019;
 - An Approach to Landscape Character Assessment (Natural England, 2014); and
 - Technical Guidance Note 06/19 'Visual Representation of Development Proposals' (Landscape Institute, 17 September 2019)
- 6.24 In line with GLVIA 3, the methodology used for this assessment has three key stages, which are described in more detail in subsequent sections, these are as follows:
- Baseline – includes the gathering of documented information; agreement of the scope of the assessment with the design team and local planning authority; site visits and initial reports to the design team of issues that may need to be addressed within the design.
 - Design – input into the design; review initial design and consideration of mitigation options.

- Assessment – includes an assessment of the landscape and visual effects of the scheme, requiring site-based work and the completion of a full report and supporting graphics.

6.25 The key terms used within assessments are:

- Susceptibility and Value – which contribute to Sensitivity;
- Scale, Duration and Geographical Extent – which contribute to the Magnitude of effect; and
- Significance of effect.

6.26 Susceptibility is assessed for both landscape receptors and for visual receptors (people). It indicates the ability of a defined landscape or visual receptor to accommodate the proposed development “*without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.*” (GLVIA, 3rd version, para 5.40). A description of how susceptibility is evaluated for each receptor type is included below:

- High – undue consequences are likely to arise from the proposed development;
- Medium – undue consequences may arise from the proposed development; and
- Low – undue consequences are unlikely to arise from the proposed development.

6.27 Landscape Value is “*the relative value that is attached to different landscapes by society*” (GLVIA, 3rd version, page 157). It is rated on the following scale:

- National / International – Designated landscapes which are nationally or internationally designated for their landscape value, including National Parks, Areas of Outstanding Natural Beauty, World Heritage sites, Heritage Coast and National Scenic Areas.
- Local – Locally or regionally designated landscapes (e.g. Area of High Landscape Value, Regional Scenic Areas); also areas which local evidence indicate as being more valued than the surrounding area.
- Community – ‘everyday’ landscape which is appreciated by the local community but has little or no wider recognition of its value.
- Limited – Despoiled or degraded landscape with little or no evidence of being valued by the community.

6.28 Scale of effect is assessed for all landscape and visual receptors and identifies the degree of change which would arise from the development. It is rated on the following scale:

- Large – Total or major alteration to key elements, features, qualities or characteristics, such that post development, the baseline situation will be fundamentally changed.
- Medium – Partial alteration to key elements, features, qualities or characteristics, such that post development the baseline situation will be noticeably changed.
- Small – Minor alteration to key elements, features, qualities or characteristics, such that post development the baseline situation will be largely unchanged despite discernible differences.

6.29 Duration of effect is assessed for all landscape and visual receptors and identifies the time period over which the change to the receptor as a result of the development would arise. It is rated on the following scale:

- Permanent – the change is expected to be permanent and there is no intention for it to be reversed.
- Long-term – the change is expected to be in place for 10-25 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.
- Medium-term – the change is expected to be in place for 2-10 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.
- Short-term – the change is expected to be in place for 0-2 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.

6.30 The Extent of effects is assessed for all receptors and indicates the geographic area over which the effects will be felt. This is rated as follows:

- Limited – site, or part of site, or small proportion of visual receptor;
- Localised – site and immediate setting, or part of visual receptor;
- Intermediate – large proportion of landscape character area or visual receptor; and
- Wide – entire landscape character area or visual receptor.

6.31 The Magnitude of effect is rated within the range of High – Medium – Low – Negligible and is informed by combining the scale, duration and extent of effect.

6.32 The detailed design and evolution of the scheme is ongoing and as such the mitigation requirements will be determined through the full environmental assessment to reduce any effects where considered necessary. These mitigation measures will be confirmed in the EIA Chapter but might include:

- The layout and design of the buildings, especially the location and orientation of tall structures relative to identified views. The material choices, textures and colours of building elevations to mitigate views of new units against the existing landscape context.
- The layout and design of lighting especially reducing any overspill for the new units and service yards and will be considered to limit their impact on nearby townscape and visual receptors.
- A landscape strategy will be developed to establish opportunities to enhance and/or restore features.

6.33 These mitigation measures are considered as 'embedded', as they have been established to avoid or minimise likely significant effects as far as practicable within the parameters of the project. In some instances, the EIA process may identify impacts that are considered significant and for which additional mitigation is required, to remove or reduce impacts identified. These are referred to as 'additional' or 'supplementary' mitigation measures and will be identified clearly as part of the LVIA process.

6.34 The assessment approach also has regard to the following policy documents and associated guidance:

- National Planning Framework 3;
- Scottish Planning Policy which establishes principles regarding placemaking, the natural environment and the provision of green infrastructure;
- Planning Advice Note 63: energy from waste;
- Central Scotland Green Network Policies;
- Clydeplan;
- Central Scotland Green Network;
- South Lanarkshire Local Development Plan; and
- Green Belt and Rural Area Supplementary Guidance.

Identification of Landscape and Visual Receptors

6.35 Landscape receptors will include the character areas, considering the role of the site within these areas and the effect of changing the sites character, the overall character of the locality as well as the landscape elements within the site. The character receptors identified at this stage include:

- Landscape Character Area (LCT 201 / LCA 5) 'Plateau Farmland – Glasgow & Clyde Valley';
- LCA Subtype 5C 'Plateau Farmland Windfarm'
- LCT 204 / LCA 2 'Incised River Valleys';
- LCT 219 / LCA Subtype 2A 'Broad Valley Floor';
- LCT 213 / LCA 213 'Plateau Moorlands';
- Stonehouse Townscape (Conservation Area);
- Site landform and topography; and
- Site features / landscape resources and land cover.

6.36 The LVIA will consider only publicly obtained views from public rights of way, public open spaces, roads etc. The baseline site description will identify any groups of housing or other private viewpoints which may have views of the site but will make no further assessment from these areas in accordance with GLVIA 3. The visual receptors identified at this stage include:

- Residential (associated with the Stonehouse and Kirkmuirhill settlement edges and other scattered hamlets / properties);
- Recreational and leisure users associated with the core paths (HM/2519/1, HM/2522/1, HM/2523/1, HM/2524/1 and HM/2521/1);
- Recreational and leisure users associated with the Glasgow to Carlisle National Cycle Route National Cycle Route 74 (Strathclyde Park to Elvanfoot);
- Users of the Cander Moss SSSI;
- Highway users associated with the M74, Carlisle Road B7078, the A71, Strathaven Road B7086 and a network of local access roads;
- Visitors and users of retail, guesthouses and hotels; and