Hillhouse IBA Processing Facility

Environmental Statement

Non-Technical Summary

Prepared for

Fortis IBA Limited

July 2024
3566-01-NTS-01

Document Control

Revision	Date	Prepared By	Reviewed / Approved By
01	09/07/2024	LM	DA
02	31/07/2024	LM	DA

Well House Barns, Chester Road, Bretton, Chester, CH4 0DH

Camelia House, 76 Water Lane, Wilmslow, Cheshire, SK9 5BB

T: 0344 8700 007
enquiries@axis.co.uk
www.axis.co.uk

CONTENTS

FIGURES

FOREWORD

1.1.1 The Environmental Statement (ES) has been prepared in support of a planning application submitted to Lancashire County Council ('the Council' or 'LCC') as Mineral and Waste Planning Authority ('WPA') by Fortis IBA Ltd ('Fortis' or 'the Applicant'). The application relates to the construction and operation of an Incinerator Bottom Ash Processing Facility ('the Proposed Development') at land within the south-eastern extent of the Hillhouse Enterprise Zone, located off South Road, Thornton-Cleveleys ('the Site').

1.1.2 The ES has been prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 and comprises the following documents:

i) The Environmental Statement (ES) Main Report (including technical ES Chapters) contains the detailed project description; an evaluation of the current environment in the area of the Proposal; the likely significant environmental impacts of the scheme; and details of the proposed mitigation measures which would alleviate, compensate for, or remove adverse impacts identified in the study. The Main Report also includes a summary of the overall likely environmental effects of the Proposal, and a summary of additional mitigation, monitoring and/or enhancement measures, along with the residual effects following their assumed implementation;

ii) Illustrative Figures which contain relevant schematics, diagrams and illustrative figures;

iii) Technical Appendices which include details of the methodology and information used in the assessment, detailed technical schedules and, where appropriate, raw data;

iv) A Non-Technical Summary containing a brief description of the Proposal and a summary of the ES, expressed in non-technical language.

A Planning Statement has also been prepared in support of the planning application supported by a series of additional environmental appendices which were not

considered ‘significant’ in EIA terms, and consequently not provided as part of the ES.

Hard copies of the Environmental Statement, as a four-volume set, are available at a cost of £600 by writing to Axis, Well House Barns, Chester Road, Chester, CH4 0DH. Alternatively, the Non-Technical Summary (NTS) can be purchased on its own from the same point of contact for £15, with the entire Environmental Statement available for purchase on a CD for £10.

1.0 INTRODUCTION AND BACKGROUND

1.1 Introduction

1.1.1 This Environmental Statement (ES) has been prepared in support of a planning application submitted to Lancashire County Council ('the Council' or 'LCC') as Mineral and Waste Planning Authority ('WPA') by Fortis IBA Ltd ('Fortis' or 'the Applicant'). The application relates to the construction and operation of an Incinerator Bottom Ash Processing Facility ('the Proposed Development') at land within the south-eastern extent of the Hillhouse Enterprise Zone, located off South Road, Thornton-Cleveleys ('the Site').

1.1.2 This document is the Non-Technical Summary (NTS) of the Environmental Statement (ES) and provides a review of the development proposals, and the possible environmental implications and measures to reduce the likely impacts (mitigation measures), in concise lay terms.

1.1.3 The ES has been prepared in accordance with guidance and legislation that requires the likely significant environmental effects of developments that arise from construction, operation and/or decommissioning to be appropriately assessed and reported.

1.2 The Applicant

1.2.1 Fortis is a wholly owned subsidiary within the Raymond Brown Group of Companies. Fortis is one of the leading companies in the UK providing facilities to recycle IBA arising from Energy from Waste (EfW) plants.

1.2.2 Fortis currently operates four IBA recycling facilities in Hampshire, Oxfordshire, Buckinghamshire and Kent, recycling c. 600,000 tonnes of IBA per annum.

1.3 Background

Site History

1.3.1 The Site is located within the Hillhouse Enterprise Zone, Thornton-Cleveleys, located to the south-east of the town of Fleetwood and on the western banks of the River Wyre Estuary. The location of the Site is shown on Figure 1.

1.3.2 Historically, the Enterprise Zone site was an Imperial Chemical Industries (ICI) production plant, and has been a leading site for chemical production in the UK since World War 2.

1.3.3 The Enterprise Zone designation was made in 2016, with the ambition of growing employment on the site to over 3,000 jobs by 2035. In 2018 a masterplan was produced to serve as the visionary document and framework to guide development in the Hillhouse International Enterprise Zone.

Planning History

1.3.4 The most recent use of the Site was as a manufacturing site for the production of polyvinyl chloride (PVC), with that use occupying the site between 1980 and 2020. The following structures and infrastructure previously occupied the Site in connection with its use for manufacturing PVC:-

i) A 4-storey high 'Additive Building';
ii) 6no. Autoclave vessels (equivalent of 5 storeys in height);
iii) 3no. Cooling towers;
iv) Effluent treatment plant;
v) Workshops, office and laboratories;
vi) Storage of raw materials, finished products and waste products.

1.3.5 All buildings and infrastructure that previously occupied the Site were decommissioned, removed and demolished down to slab level between October 2020 and May 2022.

1.3.6 The application falls within the administrative areas of LCC and Wyre Council (WC).

1.3.7 A review of the LCC and WC websites has identified a long established history of industrial development at the Site, which reflects its location amongst a larger area of such development in the locality.

1.4 Site Location

1.4.1 The Site comprises an area of previously developed 'brownfield' land. There are two main parts/sections to the Site with the first being a larger area of land set between the River Wyre (to the north east) and Royles Brook (to the south west), and the

second being a smaller parcel set to the south west of Royles Brook, with these pieces of land linked by a culvert crossing over Royles Brook.

1.4.2 The Site is bound:

i) to the north-east by a public right of way ('PRoW'), with the River Wyre beyond;
ii) to the south and south-east by an area of woodland, beyond which is Flint's Caravan Park and the Stanah Substation; and
iii) to the west and north-west by the remainder of Hillhouse International Enterprise Zone, comprising various employment and industrial uses, and vacant pieces of brownfield land.

1.4.3 The Site is accessed by a private road (South Road), which connects to other private estate roads within the Hillhouse International Enterprise Zone. Access to the Hillhouse International Enterprise Zone is provided via Bourne Road (a Gatehouse and weighbridge are located at the entrance to the Enterprise Zone), which connects to the nearest adopted highway (Fleetwood Road North) to the north-west of the Enterprise Zone.

1.4.4 The Site is also set within close proximity to several international, national and local ecological designations, including the Wyre Estuary Site of Special Scientific Interest ('SSSI'); Morecambe Bay Ramsar Site; the Wyre-Lune Marine Conservation Zone; and the Morecambe Bay and Duddon Estuary Special Protection Area ('SPA'). As such, the Site falls within the Impact Zone for the SSSI, SPA and Ramsar site.

1.4.5 Large parts of the Hillhouse International Enterprise Zone are located within Flood Zone 2 (land assessed as having between 1 in 100 and 1 in 1,000 annual probability of flooding) and Flood Zone 3 (land assessed as having a 1 in 100 or greater annual probability of flooding). The Site is located within Flood Zone 3. The Environment Agency Historic Flood Map indicates that there are no records of flooding at or within the immediate vicinity of the Site.

1.4.6 The River Wyre is located approximately 60 m east of the Site and is tidally influenced. Royles Brook flows in a south-easterly direction between the main site and the processing area. After passing beneath South Road, Royles Brook outfalls to a watercourse known as Hillylaid Pool, which discharges to the River Wyre, approximately 390m to the south-east of the Site via Stanah pumping station. The River Wyre, Royles Brook and Hillylaid Pool are all classified as main river.

1.4.7 Stanah pumping station is located off River Road, beside the entrance to Wyre Estuary Country Park. The station was installed in the 1970's following flooding to low-lying land in the area. The pumping station automatically activates when levels rise in Hillylaid Pool to contain floodwater within the channel. The station is operated and maintained by the Environment Agency.

1.4.8 The nearest residential property is located approximately 300m to the south of the Site. However, static caravans for permanent occupation, are located within Flint's Caravan Park, found circa. 40m from the Site boundary.

1.4.9 There is one designated heritage asset within 1km of the site, the Grade II listed Raikes Farmhouse located circa 860m to the south.

1.4.10 A detailed Scheme Description is provided at Section 3.0 of this document.

2.0 ALTERNATIVES

2.1 Introduction

2.1.1 In the case of the Proposed Development, and specifically the work undertaken leading up to the application, a number of alternatives have been considered. The subsequent sections provide a summary of these under the following headings:

i) 'Do Nothing' Alternative (IBA would go to landfill)
ii) Alternative IBA Processing Facility Locations
iii) Alternative HGV movement distribution across the week
iv) Alternative IBA storage Option (open windrow storage

2.2 'Do Nothing' Alternative (IBA would go to landfill)

2.2.1 Other than processing into IBAA, the alternative destination for IBA is landfill. If this happens, opportunities to recover metals for recycling, manufacture a product from a material that would otherwise be disposed of, and reduce reliance on primary aggregate is lost.

2.2.2 Furthermore, by reducing the volume of waste (IBA) that would otherwise be sent to landfill, the Proposed Development would contribute to the preservation of finite void space for other waste that cannot be recovered and reused.

2.2.3 In light of the above, the Do Nothing Alternative is less sustainable and would manage waste further down the waste hierarchy. Thus, it is not considered to be preferable.

2.3 Alternative IBA Processing Facility Locations

2.3.1 In reflection of national and local policy and targets, a number of Energy from Waste facilities (EfWs) have been consented within Lancashire and the Joint Authorities as part of the drive to move away from reliance on landfill, and the need for delivery of reliable and dispatchable low carbon energy.

2.3.2 It is clear that the growth in EfW locally and regionally places an increased need for facilities such as the Proposed Development in order to help ensure that IBA that arises as a consequential by-product is recovered and then used in the manufacture

of a useable product. This is as opposed to IBA having to be sent to landfill for disposal due to the unavailability of local processing sites.

2.3.3 Furthermore, it is clearly beneficial that facilities such as that proposed, are located in relatively close proximity to the point of generation (the EfW network) so that the distance that IBA is required to be transported is reduced, and the consequential carbon footprint is kept to a minimum.

2.3.4 The Proposed Development would be located at a site that is appropriately allocated with good access to the main road network, and well located to receive IBA from a host of existing and potential future new facilities within the north-west region.

2.3.5 The location of the Proposed Development is considered appropriate and sustainable. Consequently, no preferable alternative sites have been identified.

2.4 Alternative HGV movement distribution across the week

2.4.1 Residential properties are located along the access to the Hillhouse Enterprise Zone, along Bourne Road. During the assessment process, it was identified that there was an opportunity to reduce the number of HGVs travelling past these residential properties on a Saturday; the weekend period is recognised to be more sensitive from an amenity perspective than a weekday, due to background noise being quieter at the weekend. There would be no HGV deliveries on a Sunday.

2.4.2 In light of this, it is proposed that the number of HGV movements travelling to and departing from the Site on a Saturday would be limited. This could be implemented through use of a booking / logging system to manage HGV arrivals.

2.5 Alternative IBA storage Option (open windrow storage)

2.5.1 The Applicant operates IBA facilities where the IBA is stored and matured in the open air, rather than within a building, as is proposed through the Proposed Development.

2.5.2 During the design process, cognisant of the Site context (residential properties and ecological designations nearby), it was recognised that dust management would be critical to the operation of the Site.

2.5.3 As such, it was decided to house the IBA windrows within a 3-sided building as this would aid dust management processes.

3.0 SCHEME DESCRIPTION

3.1 Introduction

3.1.1 This section provides an overview of what Incinerator Bottom Ash is, the process undertaken by Fortis IBA Ltd to produce aggregate from that material, and the Proposed Development being applied for.

3.2 Incinerator Bottom Ash

3.2.1 Incinerator Bottom Ash (IBA) is the non-combustible residue arising from the incineration of waste in Energy from Waste (EfW) plants. IBA is classified as a non-hazardous waste and can be processed to recover metals and prepare the remaining material for re-use. The recovered metals are exported to specialist facilities for onward recycling with the remaining material cleaned of contaminants and standardised. The resulting product forms a secondary aggregate known as Incinerator Bottom Ash Aggregate (IBAA).

3.3 Process Overview

3.3.1 The Proposed Development is for an IBA recycling facility, with a maximum processing capacity of 350,000 tonnes of incinerator bottom ash per annum. The following sections provide a summary of the main process equipment, utilities, buildings, and plant interfaces that would be built in the event that the planning permission is granted as applied for.

3.3.2 The proposed IBA facility will take bottom ash from non-hazardous waste incinerators that accept municipal (household), commercial and industrial wastes, and process it into IBA aggregate (for use in the construction industry) and metals (for recycling at other facilities).

3.3.3 Prior to arrival at the Site, IBA is subject to hazard classification testing by EfW operators in accordance with the ESA (Environmental Services Association) Protocol. IBA is delivered to Site and stored (for 6-8 weeks) whilst the ESA testing results are pending. During this time the IBA ‘matures' whereby chemical reactions take place to stabilise the IBA.

3.3.4 Upon receipt of the ESA testing and confirmation that the waste meets the necessary criteria, the IBA can be processed. If the IBA is deemed hazardous following receipt of the ESA testing result, it is disposed of by the EfW operator.

3.3.5 The IBA processing operation is described below.

i) Following the maturation process, a loading shovel will feed the IBA into a feed hopper and a belt feeder will regulate the flow of material into the processing plant.
ii) Having entered the processing plant, the material will be passed over by a magnet which will remove any larger pieces of ferrous metal from the IBA. These metals are then sold on for recycling and reuse.
iii) The IBA material will then pass through a screen, which will separate the larger material. At this stage an operator will also remove any mixed oversize metal (typically oversized brick and concrete pieces). Crushing of oversize material may be required on a campaign basis.
iv) The finer material (typically <50mm) will then pass through a second screening process, separating material into processable fractions (typically fines / medium /large). Subsequently, the material will enter a metals separation process, which will remove further ferrous material (such as batteries) and small particles of non-ferrous metals. These metals are also sold on for recycling and reuse
v) Screens are then used to split the remaining material into three size categories. These three grades of material are then passed over a series of specialist equipment designed specifically for non-ferrous metal recovery. These non-ferrous metals are exported for recycling.
vi) The remaining material is then blended to form IBA Aggregate (IBAA).

3.3.6 IBAA can be substituted for primary aggregates in a number of structural applications, diverting the material from landfill and reducing the need for primary-won aggregates and associated environmental impacts winning of such material can give rise to.

3.4 The Proposal

3.4.1 The Proposed Development would operate 24 hours per day and 7 days per week (except during a night-time period 2300-0700 hours on a Saturday into a Sunday morning). These hours are required in order to process IBA from Energy from Waste

plants, which also operate 24/7. IBA deliveries would be restricted to between the hours of 06.00 and 19.00 six days a week (Monday to Saturday) and no deliveries on Sundays or Bank Holidays.

3.4.2 There would be between six to nine staff onsite at any given time, depending on whether each 24-hour period is split into two or three shifts. The two 12-hour shifts would take place from 06:00 – 18:00 and 18:00 – 06:00 whilst the three 8-hour shifts would take place from 06:00 to 14:00, 14:00 to 22:00 and 22:00 to 06:00. There is car parking provision for 24 spaces onsite.

3.4.3 The Proposal comprises the construction of the following:-

i. Processing plant, housed within a Processing Building comprising:
   a. Feed hopper;
   b. Modular plant including conveyors, magnets, eddy current separators and screens;
ii. Processing Building (a clad, steel portal-framed building measuring circa 17m in height and with a footprint of 2,200 m^2);
iii. Metal Storage Bay Building, a 3-sided, steel framed cladded building;
iv. IBA and IBAA storage areas within a Storage Building circa 15m in height. This building would be a 3-sided, steel framed cladded building, with the north-eastern façade open to provide sufficient access for site traffic and mobile plant. The building measures 230 metres in length by 92 metres wide (at the widest section), occupying a footprint of 1.68 hectares;
v. Demolition of the existing office building within the south-east of the Site;
vi. Modular office, laboratory and welfare units;
vii. 3 x standard 28ft containers, measuring 6 metres long by 3 metres wide for storage of site equipment;
viii. Elevated conveyors to transport material between the Storage Building and the Processing Building;
ix. Picking Station adjacent to the Processing Plant Building and linked to it via conveyors;
x. Retention of the pedestrian walkway spanning Royles Brook, connecting the two parts of the Site;
xi. Retaining wall (3 m high at the Storage Building and Metal Storage Bay Building area; 2.1 m high at the Processing Building area);

xii. A purpose built, impermeable, sealed surface, to be provided in accordance with the requirements of the Environmental Permit being sought alongside the planning application;

xiii. Boundary treatments, a gated site access, weighbridges and wheelwash; and

xiv. Parking for staff and visitors.

3.4.4 The Site is accessed by a private road (South Road), which connects to other private estate roads within the Hillhouse International Enterprise Zone. Access to the Hillhouse International Enterprise Zone is provided via Bourne Road (a Gatehouse and weighbridge are located at the entrance to the Enterprise Zone), which connects to the nearest adopted highway (Fleetwood Road North) to the north-west of the Enterprise Zone.

3.4.5 HGVs would utilise the local road network comprising, Bourne Road/Bourne Street, B5268 Fleetwood Road North, Bourne Way and the A585 Amounderness Way, linking to the M55 for wider importation of IBA and distribution of IBAA.

3.4.6 Inward and downward orientated low-intensity lighting will be provided as necessary to operate the facility safely. Any scheme would be designed to prevent nuisance glare and minimise light trespass avoiding adverse impacts to adjacent habitats and landscape.

4.0 SUMMARY OF EFFECTS

4.1 Introduction

4.1.1 The purpose of the ES is to consider the likelihood of the Proposed Development to potentially impact positively and/or negatively in a significant way on the environment of the Site and its surroundings, and on the local community. To understand the potential significant effects the Applicant sought a Screening Opinion from Lancashire County Council in February 2024, with the Opinion issued in March 2024.

4.1.2 In that Screening Opinion, it was determined that the Proposal was unlikely to result in significant environmental effects in relation to:

i) Cultural Heritage.
ii) Arboriculture.
iii) Landscape.

4.1.3 Nonetheless, these topics are considered as part of the Planning Statement.

4.1.4 On this basis the Environmental Statement assessed the following topics in detail, the findings of which are summarised in this NTS:

i) Traffic and Transport
ii) Ecology
iii) Noise Chapter
iv) Air Quality
v) Ground conditions
vi) Drainage and Flood Risk

4.1.5 The Screening Opinion did not offer advice in relation to cumulative impacts (changes caused by combining together several different environmental topics)however, cumulative effects have been considered during the preparation of each technical chapter of the ES.

4.2 Transport

4.2.1 Chapter 5.0, together with the accompanying Transport Statement (TS) report in ES Appendix 5.1, sets out an assessment of the likely significant environmental effects of traffic and transport-related impacts from the Proposed Development. Relevant

and appropriate policy, guidance, and standards and have been used to assess existing conditions and to determine the impact.

4.2.2 Baseline traffic predictions have been established for the years of 2026 (year of opening) and 2031. The transport effects are determined from changes in traffic arising from the proposal from the forecast baseline levels (the state of the environment without the Proposed Development),in the 2026 and 2031 assessment years.

4.2.3 The study area for the assessment includes the following roads and receptors set along them:

i) Bourne Road / Bourne Street;
ii) Bourne Way
iii) A585 Amounderness Way.

4.2.4 Construction would take place over approximately 16 months, and would result in a total of 105 two-way vehicle trips per day, on average, including 32 two-way HGV movements per day. A Construction Traffic Management Plan (CTMP) would be prepared and would ensure routing of construction traffic is on agreed haulage routes, and would set out mitigation of any adverse effects from construction traffic.

4.2.5 When operating the Proposal is anticipated to generate approximately 242 two-way vehicle trips per day on weekdays, including 206 two-way HGV trips. There would be approximately 166 two-way vehicle trips in total on Saturdays, which would include a maximum of 130 two-way HGV movements. When assessed against the 2026 and 2031 baseline, the impact of the proposal on the local highway network would be low, with flows which are largely within the expected day to day fluctuations of traffic.

4.2.6 It is concluded that the traffic-related environmental effects associated with the Proposed Development are not significant in nature.

4.3 Ecology

4.3.1 Chapter 6.0 assesses the potential effects of the Proposed Development on ecological receptors. The assessment is informed by a desk study, Extended Phase 1 Habitat Survey, Otter and Water Vole Survey and Great Crested Newt Assessment.

4.3.2 The Site comprises, hardstanding, sparsely vegetated ground, bare ground, grassland, scrub, two buildings and a small water-filled concrete pit. Outside of the boundary of the Proposed Development, but between the two parcels of land, there is Royles Brook; a slow-flowing water course flowing towards the Wyre Estuary. The channel is on average 2m wide and heavily modified with re-sectioned banks, a straightened course and several culverts.

4.3.3 Five statutory designated sites and four non-statutory designated sites were considered in the assessment. The Proposed Development will not result in any direct impacts to any of these sites due to habitat loss.

4.3.4 During the construction phase, the majority of habitats on Site will be lost to facilitate construction. An area of vegetation on the culvert crossing over Royles Brook would be retained.

4.3.5 Scrub planting is proposed on Site. The application will achieve biodiversity net gain through biodiversity offsetting options, subject to agreement with LCC and delivered via a suitably worded planning condition.

4.3.6 Various measures are proposed to be adopted through the construction phase to minimise impacts on ecological features, including pollution control measures. The assessment identifies that impacts during the operational phase have been addressed as far as reasonably practicable through avoidance and the embedded mitigation within the design of the Proposed Development.

4.3.7 It is concluded that the ecology-related environmental effects associated with the Proposed Development are not significant in nature.

4.4 Noise

4.4.1 Chapter 7.0 sets out the assessment of noise impacts of the Proposed Development. It describes the methods used to assess the effects, the existing sound climate and the assessment of future baseline sound levels in the vicinity of the Site.

4.4.2 To establish any likely impact from noise, a robust assessment of baseline sound levels has been considered by undertaking fixed position noise monitoring at three noise sensitive receptor areas around the Site, over a four-day period including a weekend. The noise climate at the Site is dominated by road traffic and industrial noise.

4.4.3 Best practice measures would be employed to minimise and control the noise generated during the construction and future de-commissioning period. Measures may include restriction on operating hours, and careful choice of piling rigs to minimise noise. Furthermore, the most potentially impactful activities (e.g. piling, infrastructure and building steelwork construction) would be avoided during the most sensitive period for ecological receptors (over winter).

4.4.4 In relation to the operational phase, a number of potential mitigation measures have been proposed to ensure that the resultant operational noise levels are within appropriate guidance and standards to avoid adverse impacts on both residential and ecological sensitive receptors.

4.4.5 The assessment concludes that there would be no significant impacts during the construction, operation or decommissioning of the Proposed Development following the implementation of appropriate mitigation.

4.5 Air Quality

4.5.1 Chapter 8.0, and its supporting appendices, sets out an assessment of dust and vehicle emissions during the construction, operational and decommissioning phases of the Proposed Development. Dust emissions have been assessed qualitatively in accordance with best-practice guidance. Vehicle emissions have been quantified using dispersion modelling.

4.5.2 Consideration has been given to the contaminants potentially present in the IBA. The vast majority of IBA is inert material, such that ash dust would be of similar composition to mineral dust. However, some contaminants from the waste fuel and the EfW combustion process would be present in trace quantities. An analysis of the potential quantities of contaminants in the IBA and the impact of fugitive emissions has been undertaken and is presented in ES Appendix 8.5. This shows that the potential emissions of these pollutants would not significantly increase pollutant concentrations. Therefore, effects on human health have been screened out and the air quality assessment focusses on the effect of dust emissions on amenity at human sensitive receptors, and on ecology.

4.5.3 The Chapter outlines the baseline conditions at the Site, and concludes that pollutants do not exceed relevant standards and in general are likely to reduce in the future. Account is taken of consented but not yet operational schemes that may

impact upon air quality when assessing the potential cumulative impacts of the Proposal.

4.5.4 During the construction period, there is potential for dust to be generated from earth works and movements of plant and machinery. To address this a number of mitigation measures have been identified and would be integrated into the Construction Environmental Management Plan (CEMP). Following implementation of these measures the residual effects will not be significant. The effect of construction phase vehicle emissions would also not be significant.

4.5.5 During the operational phase, the main potential source of adverse effects would be the potential for dust to be generated from stockpiled IBA. Embedded mitigation (mitigation measures incorporated into the design of the facility) has been included in the Proposed Development through the design of buildings, and this would be supplemented by operating techniques to further control potential dust which would be contained in a Dust Management Plan. This would be subject to control by the required Environmental Permit the facility would require to operate. Following implementation of these measures the residual effects from dust would not be significant.

4.5.6 The impact of vehicle emissions has been assessed as negligible. Therefore, no mitigation measures regarding vehicle emissions are required.

4.5.7 In conclusion, the residual effect of the Proposed Development, with respect to all receptors, is assessed to be not significant.

4.6 Ground Conditions

4.6.1 Chapter 9.0, together with the accompanying Phase 1 Geo-Environmental Desk Study for Hillhouse IBA (Appendix 9.1) sets out an assessment of the likely significant effects of the Proposal with regard to ground conditions and ground contamination during the construction, operational, and decommissioning phases.

4.6.2 The Chapter outlines the likely ground and ground water conditions at the Site, as well as in the wider surrounding environment. It considers the likely significant potential effects from the Proposed Development on the identified receptors of human health, controlled waters, and ecological receptors, or buildings/ground stability.

4.6.3 Relevant and appropriate policy, guidance, and standards and have been used to assess existing conditions and to determine the impact.

4.6.4 The baseline conditions at the existing Site and in the surrounding area have been assessed, with these formed by the previous use of the Site as a Polyvinyl Chloride (PVC) production facility, with the buildings and infrastructure of these recently demolished. The Site is located within a large industrial area specialising in the manufacture of various chemicals and polymers, but with other uses present, and various services underneath or set around the Site. It is also set close to the River Wyre (which is subject to a number of Ecology/Nature Conservation Designations), and Royles Brook runs through the Site. The Site comprises made ground, and there is potential for point sources of contamination from the previous industrial use, with some risk from any drains remaining under the site if damaged.

4.6.5 The Proposed Development includes embedded mitigation which will substantially reduce the potential effects of the Proposal. A detailed site investigation would be undertaken prior to the start of construction works to identify any residual contamination that may be present and ensure that it is remediated as part of the development. This would also inform the final overall design and construction of the Proposed Development, and a Construction Environmental Management Plan. These would be agreed with the Local Authority, Environment Agency and other stakeholders as necessary.

4.6.6 Sites operations would also be subject to an Environmental Permit from the Environment Agency, which will set out requirements for environmental management and monitoring of operations, storage of fuels, chemicals, other materials and wastes.

4.6.7 Based on available evidence and following the implementation of a series of recommended mitigation measures, the residual effect of the Proposed Development, with respect to all receptors, is assessed to be not significant.

4.7 Drainage and Flood Risk

4.7.1 Chapter 10.0, together with the accompanying Flood Risk and Drainage Assessment report (ES Appendix 10.1) sets out an assessment of the likely significant flood risk and drainage effects of the Proposal. This includes potential impacts of the Proposed

Development upon surface water, flood risk management, land drainage and infrastructure (in this case wastewater treatment and sewerage).

4.7.2 The baseline conditions at the existing Site and in the surrounding area have been assessed, with these confirmed from desktop information and by a Flood Risk and Drainage Assessment for the Proposed Development.

4.7.3 The River Wyre is located approximately 60 m east of the Site. Royles Brook flows in a south-easterly direction between the main site and the southern parcel. After passing beneath South Road, Royles Brook outfalls to a watercourse known as Hillylaid Pool, which discharges to the River Wyre via the Stanah pumping station.

4.7.4 The Environment Agency Flood Map for Planning shows the Site as being in Flood Zone 3, which indicates a 'high probability' of flooding from rivers and / or the sea. However, the risk of flooding to the Proposed Development is assessed to be low due to the presence of flood defences, albeit that there is a potential residual risk of flooding if there was a breach of the River Wyre tidal defences, or due to blockage of the culvert on Royles Brook adjacent to the Site.

4.7.5 The existing Site is understood to drain to Royles Brook, and was previously served by a private foul drainage system for the wider industrial area.

4.7.6 During the construction phase potential effects would be managed through a range of control and monitoring measures including best practice construction methods that would act to mitigate the potential effects on surface water, groundwater, flood risk, land drainage and infrastructure.

4.7.7 The effects of the Proposed Development during its operational phase have been mitigated through embedded design mitigation measures including raising finished floor levels and the implementation of a surface water drainage strategy. A detailed drainage design has been prepared and is provided on Drawings 24-0045-C10501 Drainage Layout Sheets 1 – 4 which accompany the planning application.

4.7.8 During the decommissioning phase, effects would be managed through similar measures as those implemented during the construction phase, in addition to using best practice methods for decommissioning the surface water drainage system.

4.7.9 The identified mitigation measures would result in a residual significance of environmental effects on the water environment which is assessed to be negligible,

and therefore the environmental effects on the water environment is assessed to not be significant. However, the Proposed Development has the potential to have a Minor Beneficial effect on surface water and flood risk management in respect of the local area (specifically Royles Brook and Hillylaid Pool).

5.0 CONCLUSION

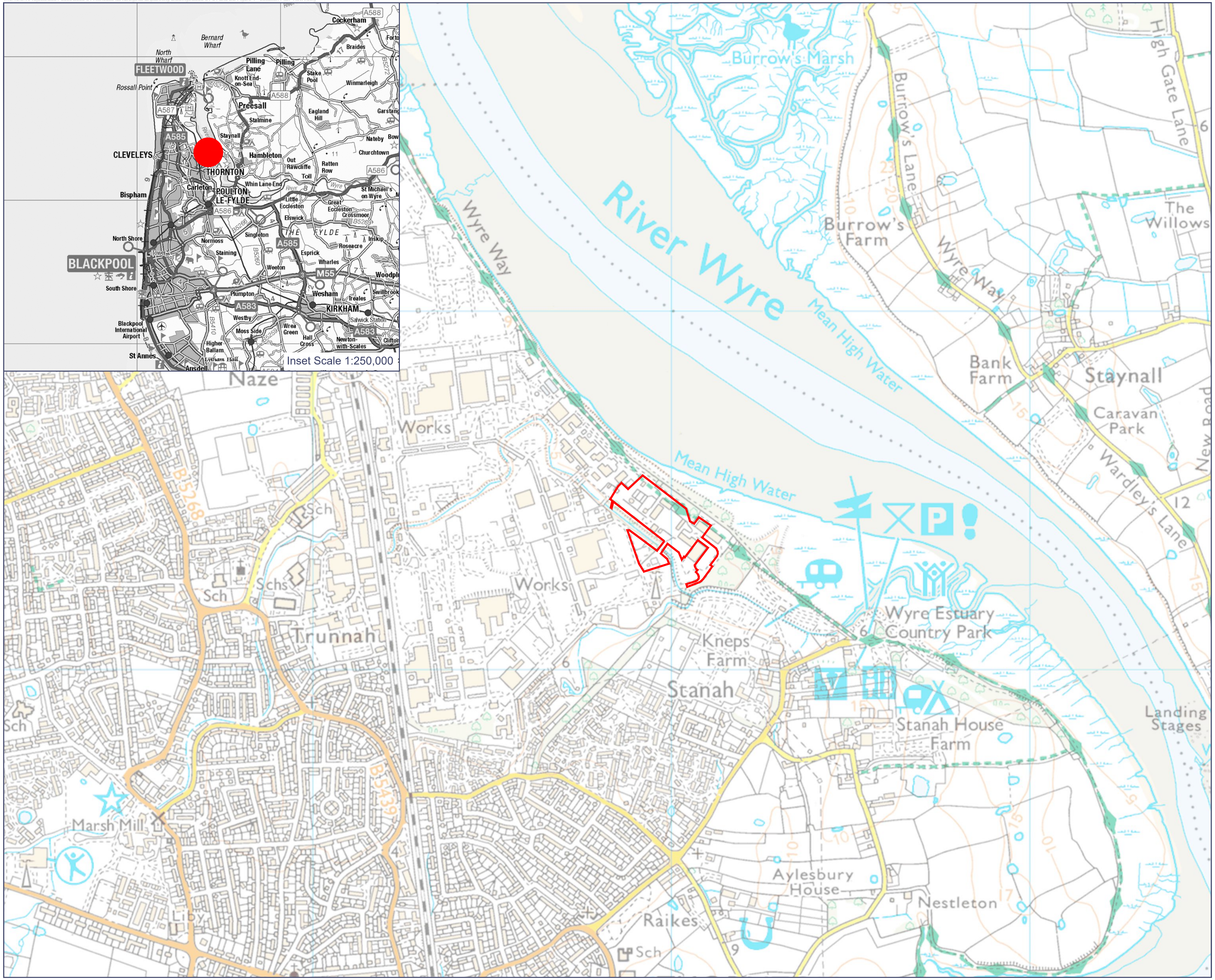
5.1.1 The ES has been prepared in support of a planning application submitted to LCC by Fortis IBA Ltd. The application relates to the construction and operation of an Incinerator Bottom Ash Processing Facility on land within the south-eastern extent of the Hillhouse Enterprise Zone, located off South Road, Thornton-Cleveleys.

5.1.2 The ES provides a detailed description of the construction, operation and decommissioning of the Proposal and provides an assessment of likely significant effects which could arise in relation to the following topics:

i) Traffic and Transport
ii) Ecology
iii) Noise
iv) Air Quality
v) Ground conditions
vi) Drainage and Flood Risk

5.1.3 The ES has assessed and evaluated all potential significant, direct and indirect, environmental effects of the Proposal. Despite the fact that several environmental topics were included within the ES because they were considered as ‘likely’ to give rise to significant environmental effects, following assessment it was concluded that no significant effects exist. A range of mitigation and enhancement measures are proposed which would ensure any adverse environmental effects from the Proposal are minimised.

Figure 1 Site Location



Application Boundary
Site Location

0344 8700 007
axis.co.uk

Project
Hillhouse IBA

Figure Number
Figure 1

Figure Title
Location Plan

Scale
1:10,000 @A3

Date
July 2024