



ENVIRONMENTAL PERMIT VARIATION APPLICATION (EPR/FB3805GN)

for the A303 IBA Facility located at

A303 Enviropark, Drayton Road, Barton
Stacey, Andover, Hampshire, SO21 3QS.

Report Prepared on Behalf of:
Fortis IBA Limited



Report Date:
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This Report was prepared by PDE Consulting Limited on behalf of Fortis
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1. INTRODUCTION

Background

- 1.1. PDE Consulting Limited (the 'Agent') has been commissioned by Fortis IBA Limited (the 'Operator') to prepare and submit to the Environment Agency (EA) an application to vary an environmental permit for the continued storage and treatment of non-hazardous wastes at their A303 Facility located in Andover, Hampshire (the 'Site').
- 1.2. Environmental Permit No. EPR/FB3805GN was transferred to the Operator in April 2018 and allows the storage and treatment of incinerator bottom ash (IBA). It has been subject to a number of variations with the current permit being Version 5.
- 1.3. The proposals include the deconstruction and removal of the existing IBA processing plant and the construction of a new, replacement plant (replant), within the current permit boundary. The replant is an upgrade to the existing IBA processing plant and will process imported IBA to produce IBA Aggregate (IBAA) and screened metals. The replant process operation is similar to the existing plant; however technological advances have been integrated to improve energy efficiency and metals recovery which in turn will improve the quality of the IBAA. The replant will be enclosed within a steel-clad building.
- 1.4. In addition, a new enhanced IBA recovery facility is to be installed at the Site, which will be located within a fully enclosed building, outside of the current permit boundary. The enhanced IBA recovery facility will further refine the non-ferrous fraction produced from the replant; as well as imported non-ferrous metals from the other Fortis sites. The plant shall be comprised of a material receipt hall, storage area and dry and wet separation plants. Recovered IBA residue will be returned to the adjacent IBA recycling plant for use in the IBAA. The recovered metals from the enhanced IBA recovery facility (dry and wet separation plants) are then either ready for export and onward recycling; or will pass over an additional eddy current separator (ECS) to improve the recovery of aluminium. The enhanced IBA recovery facility will be fitted with appropriate dust management systems, including a Local Exhaust Ventilation (LEV) system.
- 1.5. A Non - Technical Summary of the application is presented in Appendix 1.

The Operator

- 1.6. Fortis is one of the leading companies in the UK providing facilities to recycle IBA arising from Energy from Waste (EfW) plants. Fortis have been processing IBA for over fifteen years and currently operate four IBA recycling facilities in Hampshire, Kent, Oxfordshire and Buckinghamshire, recycling approximately 600,000 tonnes of IBA per annum.
- 1.7. Since 2013, over one million tonnes of IBAA has been distributed from the A303 Enviropark into the local construction market as a secondary/ recycled aggregate for use in suitable construction projects. The geographical market for the material is largely dictated by the economic distance of road haulage, which on average sees aggregates travelling up to approximately 30 miles from source (predominantly within Hampshire).
- 1.8. The use of IBAA has therefore conserved one million tonnes of primary aggregate (finite resource), and it has also diverted over one million tonnes of ash previously sent to landfill, since the opening of the A303 IBA processing facility in 2013.

1.9. The benefits of Fortis IBAA include:

- High quality product due to advanced processing technology which can be used for earthworks, road construction and as a base material for further higher grade processing;
- Superior material performance compared to primary aggregates due to Fortis IBAA having pozzolanic properties;
- Beneficial bulk density, resulting in reduced quantities required versus primary aggregates;
- Helping to preserve natural resources;
- Diverting at least 95% of municipal waste away from landfill;
- Generating electricity for hundreds of homes;
- Reducing carbon footprint by producing a secondary aggregate locally; and
- Avoiding the tax applied on primary aggregates.

Legislative Context

1.10. An Environmental Permit is required, under the Environmental Permitting (England and Wales) Regulations 2016 (*SI 2016 No. 1154*) (EPR) to operate:

- Installations that carry out Schedule 1 activities;
- Specified waste activities; and
- Mobile plant.

1.11. The EPR were made on 11 December 2016 and provide a consolidated system of environmental permitting in England and Wales. They fully replace the Environmental Permitting (England and Wales) Regulations 2010 (S.I. 2010/675). The EPR transpose provisions of fifteen Directives which impose obligations required to be delivered through permits or capable of being delivered through permits.

1.12. The processing of IBA falls under the following listed activity in Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016:

- 5.4A(1)(b)(iii) - recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving treatment of slags and ashes (Waste Framework Directive (WFD) codes R4 and R5).

1.13. It is necessary to vary the Schedule 1 activity to reflect the following changes:

- The operation of a new, replacement IBA processing plant (replant) in a building, within the current permit boundary; and
- The operation of a new enhanced IBA recovery facility within a fully enclosed building, outside of the current permit boundary.

Pre Application Advice

- 1.14. PDE submitted a request for bespoke pre-application advice on 11 April 2025 and requesting a pre-application meeting.
- 1.15. It was originally proposed to apply for a new permit for the enhanced IBA recovery facility, and this is what was referenced in the pre-application request. However, it was later agreed with the Operator to vary the existing permit, and for the application to include the replant and the enhanced IBA recovery facility.
- 1.16. Initial contact was received from the EA (telephone call from Richard Hadley) on 06 August 2025, during which the application was discussed and the associated requirements and fees.
- 1.17. In the telephone conversation of 06 August 2025, Richard Hadley suggested that the addition of the enhanced IBA recovery facility would attract the new activity application fee, and that the replant would be classed as a normal variation. He was of the opinion that a fire prevention plan would not be required.
- 1.18. Due to the timescales and the need to submit the application soonest, it was agreed to reduce the scope of the pre-application advice, which included not proposing to hold a meeting.
- 1.19. An updated project brief and list of questions for the application was e-mailed to Richard Hadley on 12 August 2025.
- 1.20. On 09 September 2025, Richard Hadley responded in an e-mail with limited advice including which forms to complete and the application fee. He confirmed that the replant would be classed as a substantial variation and that an emissions management plan would be required.

EPR application Forms

- 1.21. This report has been produced to accompany the following completed application forms which are presented as Appendix 2:
 - Part EPA (About you);
 - Part EPB3 (New bespoke installation permit);
 - Part EPC2 (General – varying a bespoke permit);
 - Part EPC3 (Variation to a bespoke installation permit); and
 - Part EPF1 (Opra, charges and declarations).

EPR Charging Scheme

- 1.22. Permit application charges are listed in the “The Environment Agency (Environmental Permitting and Abstraction Licensing) (England) Charging Scheme 2022 (Version 1.7)”.
- 1.23. The fee breakdown for the application is summarised in Table 1.
- 1.24. The total charge of £24,719 has been provided alongside this application.

Table 1: Permit Application Fee

Charge Reference	Plan or Assessment	Charge
1.16.2.4	Enhanced IBA recovery facility – new Section 5.4 Part A(1)(b)(iii) activity	£12,357
1.16.2.4	Replant - substantial variation application fee for activity reference Section 5.4 Part A(1)(b)(iii)	£11,121
1.19.5	Emissions Management Plan (Dust)	£1241

Planning Permission

- 1.25. A planning application (reference No. 25/01966/CMAN) to replace and extend the existing IBA Processing Facility was submitted by the Operator to Hampshire County Council (HCC) on 11 August 2025.
- 1.26. In a consultation response dated 12 September 2025, the EA commented that:

“We have reviewed the planning application. We have no objection to the proposal; however, as noted within the application, this will require a variation to the existing permit”.

2. SITE DETAILS

Site Location and Setting

- 2.1. The A303 Enviropark is located approximately 8 kilometres (km) south east of the town of Andover, around 1.8 km north of the village of Barton Stacey and around 1.9 km south-east of the village of Longparish, Hampshire.
- 2.2. The Enviropark lies approximately 200 metres (m) north of the A303 Strategic Road and is accessed from the Longparish to Barton Stacey Road (Drayton Road) around 35 m north of the northern slip of the grade-separated junction with the A303. The A303 connects to the A34 and M3 to the east and the A338 to the west.
- 2.3. The Enviropark currently comprises a Materials Recycling Facility (MRF) and associated offices and car park, operated by R Collard located in the southern and western part. The IBA recycling facility operated by Fortis is in the northern part and an associated IBA storage area located to the west of the IBA and MRF processing areas. The Enviropark extends across an area of approximately 10 hectares including landscaped areas.
- 2.4. Access to the existing IBA facility is through the MRF, which itself is accessed on its southern boundary via an approximate 470 m long private concrete access road from Drayton Road.
- 2.5. Adjacent and to the north of the Enviropark is a solar farm. To the east, a shooting school and a gas pipeline service station. To the south-east, a go karting club, and to the south, open space controlled by the Ministry of Defence (MoD) which is bordered by the A303. To the west of Drayton Road lies further MoD controlled land.
- 2.6. The Site is remote from housing or other sensitive development. A hotel (Travelodge) and residential caravan park (Drayton Manor Park Homes) are located on the A303 westbound carriageway (Barton Stacey Bypass) approximately 315 m and 350 m to the south west of the Site respectively, alongside a service station.
- 2.7. The nearest permanent residential receptor to the Site is Owls Lodge Farm located approximately 900 m to the north west of the Site.
- 2.8. The potentially sensitive receptors within 1 km of the Site are tabulated in the DMP in Appendix 12.
- 2.9. The Enviropark benefits from earth mounding to the north, south and west, planted with native shrubs and trees to visually screen and integrate the facility into the landscape and deliver significant biodiversity enhancement.

Existing Situation

- 2.10. The Site comprises approximately 1.2 hectares (ha) of the existing IBA processing facility and a 2.1 ha extension area which currently forms part of the 'fallout' zone (area for fallen clay pigeons) for the Shooting School. The existing IBA facility comprises impermeable hard surfacing which will be extended to incorporate the extension area.
- 2.11. The extension area currently comprises a large flat area of grassland, with a steeply sloping bund to the north (approx. 8m high) and part of a more gently inclined slope to the south (approx. 5m high). The central and southern parts are dominated by grassland, including some tall ruderal vegetation, dense and scattered mixed scrub on the bund in the northern part of the site.

- 2.12. The extension area is relatively flat, with a slight undulating microtopography, with a slight downward slope towards the south. The north eastern corner is reported to be at a height of 70.79 mAOD (metres Above Ordnance Datum) which falls to 68.76mAOD in the south western corner.
- 2.13. The existing IBA processing facility comprises IBA stockpiles, metal storage bays, Site offices/welfare facilities and a lagoon. IBAA is stockpiled in the 'front field' of the Enviropark, awaiting collection and distribution by HGVs. All material is weighed via the adjacent, Collards weighbridge with records kept onsite for future auditing purposes.

Environmental Site Setting

Geology

- 2.14. A Soil Resources Survey (Tim O'Hare Associates LLP, January 2025) was conducted, in the proposed eastern extension area. The soils were examined by constructing a total of five hand-dug trial holes and six mechanically-dug trial holes (by excavator) at representative locations within the extension area. The hand-dug trial holes were dug to the depth of the chalk horizon, and the machine-dug holes were excavated to depths exceeding 1000mm. The soil profile across the Site was reasonably consistent, and generally comprised a clay loam topsoil over a thin silty clay to clay subsoil, over chalk.
- 2.15. It is understood that available published geological mapping of the Site records, crosscutting the western part of the Site, a 50 m wide dry valley within which Head Deposits are present. Head Deposits typically comprise sand and gravel, locally with lenses of silt, clay or peat and organic material (refer to borehole logs in the Site Condition Report (SCR)) in Appendix 3.
- 2.16. The bedrock geology comprises the Seaford Chalk Formation. Outcropping immediately to the north of the site is the overlying Newhaven Chalk. Both lithologies are formations of the White Chalk Subgroup of Late Cretaceous age. The Seaford Chalk Formation is typically described as firm white chalk with conspicuous semi-continuous nodular and tabular flint seams (refer to borehole logs in the SCR in Appendix 3).

Hydrogeology

- 2.17. The EA classifies all aquifers as controlled waters but divides them into three categories: principal aquifer; secondary aquifer and unproductive strata. The chalk is classed as a principal aquifer.
- 2.18. Principal aquifers are layers of rock or drift deposits that have high intergranular and/or fracture permeability meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.
- 2.19. The Site is not located within a groundwater source protection zone (SPZ). There is an SPZ1 (inner protection zone) located approximately 970 m northwest of the Site, for an abstraction within the Test Valley.
- 2.20. Groundwater was not encountered in the trial pits, which were excavated to a depth of approximately 1.0 m, during the soil survey for the proposed extension area. Groundwater was not encountered in the trial pits (up to 3.2 m depth) in the previous ground investigation undertaken at the front field site.
- 2.21. Recent groundwater level measurements were taken from a new monitoring point in the front field site. Groundwater level ranged from 55.35 mAOD in March 2025 to 53.55 mAOD in June 2025.

- 2.22. The BGS Hydrogeological Map of Hampshire and the Isle of Wight (1:100,000, 1979) indicates a hydraulic gradient sloping to the south or southwest, towards the River Dever.
- 2.23. According to the planning application documents, there are no groundwater abstraction licences within 1 km of the Site.

Hydrology

- 2.24. The Site consists of two complexes: the “main site” containing the IBA processing plant and the “front field” storage area for processed IBAA. Both complexes have a contained impermeable surface with a sealed drainage system located at the lowest point in the topography ensuring that the Site run off is collected and contained. Site run off within each complex is fully contained with no outfall to the local surface water or groundwater features.
- 2.25. There are perimeter visual screening bunds around both the processing plant and front field complexes, and a strip of land between the two areas that have permeable landscaping and either no formal drainage, or drainage to infiltration. Permitted waste activities are not carried out in these areas which are fully isolated from the waste activities.
- 2.26. The contained runoff from rainwater falling on the Site is stored in lagoons within the main and front field sites. The water in the lagoons is re-used for re-wetting of the IBA and IBAA stockpiles, by spray irrigating the stockpiles surfaces, as well as for wetting down haul routes in the Site for dust suppression. Due to weathering reactions in the IBA and IBAA stockpiles which consume and evaporate water, significant volumes of water must be added to maintain the water content of stockpiled IBA and IBAA and prevent it becoming dry. The lagoons are sized to accommodate seasonal storage of water accumulated in wet months to use in drier periods, as well as having capacity to store storm water runoff.
- 2.27. No watercourses have been identified within 500 metres of the Site. The River Dever and River Test are located approximately 800m south and 1.1km north-west respectively. The River Dever flows west and the River Test flows south-west merging approximately 4km south west of the Site.
- 2.28. Based on the review of the EA’s Flood Map for Planning, the Site has been identified as lying entirely within Flood Zone 1, that is land assessed as having less than 1 in 1,000 annual probability of river or sea flooding (0.1%). The risk of flooding from rivers of the sea is considered very low.
- 2.29. Further details are provided in the Flood Risk Assessment (FRA) (AtkinsRéalis, August 2025) in Appendix 16.

Air Quality

- 2.30. According to the Defra website¹ the Site is not located within an Air Quality Management Area (AQMA).
- 2.31. The nearest Air Quality Management Area (AQMA) is located approximately 12 km to the south of the Site in Winchester: Winchester Town Centre AQMA. Winchester Town Centre AQMA was declared in November 2003 for Nitrogen dioxide (NO₂) and Particulate Matter PM₁₀.

¹ <http://uk-air.defra.gov.uk/aqma/>

Nature and Heritage

Nature Conservation

- 2.32. It is understood that the Site is not located within any national or local landscape designation. The nearest nationally designated area is the North Wessex Downs Area of Outstanding Natural Beauty (AONB), the southern boundary of which is located approximately 3.6 km to the north of the site.
- 2.33. The Site is not located within any international, national or local ecological designation. Two nationally designated sites for nature conservation are located within 2 km of the Site:
- The River Test Site of Special Scientific Interest (SSSI) lies approximately 0.7 km north and 0.8 km south; and
 - The East Aston Common SSSI is located approximately 1.4 km northeast of the Site.
- 2.34. A Preliminary Ecological Appraisal and Ecological Impact Assessment Report (PEA / EclA) (Stark Ecology Limited, August 2025) has been produced to support the planning application. According to the PEA / EclA, six Sites of Importance for Nature Conservation (SINC) have been identified within 2 km of the planning application boundary, as follows:
- Longparish Cornfields SINC, a grassland supporting several notable species, 0.13 km north of the Site;
 - Drayton Down Area 1 SINC, an area of unimproved grassland 0.2 km east of the Site;
 - Lower Mills Meadow SINC, a site containing semi-improved grassland and a variety of valuable waterlogged habitats 0.75 km north of the Site;
 - Longparish Meadow SINC, an unimproved grassland 0.8 km north of the Site.
 - Tidbury Ring Wood SINC, an ancient seminatural woodland 1.7 km east; and
 - Lower Farm Meadow SINC, a site containing unimproved grassland with areas of open water supporting a variety of aquatic plants, invertebrates, birds and amphibians 1.8 km northwest.
- 2.35. There are no internationally designated sites within 10 km of the Site.
- 2.36. It is concluded in the PEA / EclA that:
- “Potential impacts upon designated sites (the River Test SSSI, East Aston Common SSSI and the Drayton Down SINC) were identified resulting from surface water drainage. These potential impacts have been addressed via a number of surface water and drainage strategies as set out in the Hydrogeological Impact Assessment by AtkinsRealis, with anticipated impacts following the implementation of appropriate mitigation resulting in Negligible impacts on these sites.*
- All other designated sites are separated from the proposed development area by tracts of arable farmland, woodland and road infrastructure and so adverse impacts upon these sites as a result of the works are not anticipated”.*
- 2.37. Natural England provided a consultation response on the submitted planning application on 10 September 2025. They commented that:
- “Based on the plans submitted, Natural England considers that the proposed development will not have significant adverse impacts on statutorily protected nature conservation sites or landscapes”.*

Heritage Assets

- 2.38. There are two Scheduled Ancient Monuments within the locality of the Site; Tidbury Ring Iron Age Hill Fort, 2 km to the east of the Site; and Andyke (Bronze Age ditch and bank formation), 1.5 km to the west, southwest.
- 2.39. There are reported to be no listed buildings within at least 1 km of the Site. It is understood that the majority of local listed buildings are within the designated Conservation Areas at the villages of Longparish and Barton Stacy.
- 2.40. There is considered to be no mechanism whereby the proposed activities could impact these heritage assets.

Historical Development

Summary of Historic Maps

- 2.41. A review of historic maps from 1871 to 2014 has been undertaken from a Groundsure report dated March 2018. There is no history of development in the proposed eastern extension area.
- 2.42. The historical maps are appended to the SCR in Appendix 3 and are summarised in Table 2 below.

Table 2 Historical Land Uses

Date	Land Use on the Site (from Proposed Permit Boundary)	Surrounding Land Use
1871 - 1872	The Site is undeveloped open space with some trees.	The area surrounding the Site is primarily undeveloped open space, likely used for agricultural purposes. Drayton (Pump) Farm includes a number of buildings and is located 100m south of the Site. "The Street" road is already present adjacent to the west of the Site.
1875 - 1876	No significant change.	No significant change from previous map. Lodge Farm is located approximately 600m east of the Site.
1894 - 1897	No significant change.	No significant change since previous map.
1910 - 1911	No significant change.	No significant change since previous map.
1956	No significant change.	There is a significant increase in the development to the south and west of the Site. A post office consisting of one large building, two smaller buildings and an access road are shown to the west of the Site. There are a number of new buildings and roads to the west of the Street labelled as Barton Stacey Camp (also referred to as Drayton Camp on later maps). A well is now shown on the southern side of the Drayton (Pump) Farm. The area to the south and southeast also contains a large number of buildings including a church and school within the Drayton Down area.

Date	Land Use on the Site (from Proposed Permit Boundary)	Surrounding Land Use
1973 - 1978	No significant change.	An electricity substation is shown 130m south of the Site near the Drayton pump farm/ cottages. The post office and associated buildings are no longer shown.
1982 - 1983	No significant change.	Drayton (Pump) Farm now called Drayton Pump Cottages. A tank is identified 700m to the north west of the Site. There is a parade ground, a rifle range, and a playing field listed in the centre of Drayton Camp. A garage is shown 300m to the south west of the Site. Another Drayton Pump Cottages is shown next to the garage.
1990 - 1995	No significant change.	The closest of Drayton Pump Cottages to the Site is no longer shown.
2002	No significant change.	A sewage works is shown 550m to the southwest of the Site in 2002. Difford Kennels and Dever Springs Trout Fishery are shown 750m south of the Site. A pipeline is shown adjacent east of the Trout Fishery. The Barton Stacey Camp and Drayton Farm and its buildings are no longer shown on the map. The developed land to the east of the Site is listed as a disused camp.
2010	No significant change.	Sewage works can no longer be seen. Drayton Park is now shown behind the garage off the A303 (300m to the south-west).
2014	No significant change.	The MRF building and lagoon are now shown 30m east of the Site.

Planning History Summary

- 2.43. Historically, the Site and immediate surrounds were owned by the MoD, purchased by what was then the War Department in 1943 from the McCreagh family. Four army camps were developed at Drayton: 'A', 'B' & 'C' Camps to the north of the A303, and 'D' Camp to the south.
- 2.44. An area of the Site forms part of the 'fall out' area for clay pigeon shooting at Owls Lodge Shooting School. Planning Permission (06/02968/VARN) was granted by Test Valley Borough Council to vary Condition 1 (time limited to 31 December 2006) for continued use for clay pigeon shooting ground, associated clubhouse, store and car park.
- 2.45. Planning Permission (09/00148/HCC3N) was granted for the construction of noise bunds on the site. Subsequent extensions of time were granted (Ref: 11/02791/CMAN and 12/0647/CMAN) in order to complete the bunds.
- 2.46. In 2007, a five-year temporary permission (Ref: 06/02870/CMAN) was granted by HCC for inert recycling on an area of the Enviropark site.
- 2.47. Following the granting of permanent permission in 2009 (Ref: 09/01292/HCC3N), the wider Enviropark site development commenced.

- 2.48. In 2013, permanent planning permission for an IBA recycling facility was granted (13/01643/CMAN).
- 2.49. In April 2017, a variation to the 2013 permission was granted (ref. 17/00172/CMAN). This new permission allowed additional working hours, additional fixed plant and an increase in throughput from 120,000 tonnes per annum to 180,000 tonnes per annum.
- 2.50. In December 2023, permission was granted for the ancillary storage area (Ref: HCC/2021/0545). The site works were due to be completed by 15 October 2024. A Section 73 application was granted to extend the time to complete the works to 23 September 2025 (Ref: HCC/2024/0576).

Existing Permit

- 2.51. Environmental Permit No. EPR/FB3805GN was issued to Fortis IBA Limited on 11 April 2018, after a partial transfer of Permit EPR/ZP3698EQ from Raymond Brown Minerals and Recycling Limited to Fortis IBA Limited.
- 2.52. The permit allows the receipt, handling, storage and treatment of non-hazardous IBA which is received from EfW plants.
- 2.53. The processing of IBA falls under the following listed activity in Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016:
- 5.4A(1)(b)(iii) - recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving treatment of slags and ashes, WFD codes:
 - R4: Recycling/reclamation of metals and metal compounds; and
 - R5: Recycling/reclamation of other inorganic materials.
- 2.54. The permit allows the following directly associated activities;
- Storage of IBA prior to treatment;
 - Storage of recovered IBAA and residual waste after treatment processes;
 - Blending of IBAA fractions with virgin / primary aggregates;
 - Storage of raw materials including gas oil, AdBlue and lubrication oils;
 - Process water collection and storage - collection and storage of contaminated site surface water in lagoons; and
 - Surface and roof water collection and storage - collection and storage of uncontaminated roof and site surface water in lagoons.
- 2.55. The permit was varied on 22 November 2019 to change the registered address only (EPR/FB3805GN/V002).
- 2.56. The Operator submitted an application on 17 July 2020 to vary the annual waste throughputs from 180,000 tonnes to 205,000 tonnes. A consolidated permit was issued on 02 October 2020 (EPR/FB3805GN/V003).
- 2.57. The permit was varied on 10 February 2021 to increase the IBA storage area and add EWC code 19 12 12 for IBAA returned to the Site only (EPR/FB3805GN/V004).

- 2.58. On 11 July 2023 the EA conducted a non-hazardous waste sector review and issued a Regulation 61 Notice to the Operator requiring information for the statutory review of the permit against Waste Incineration Best Available Technique (BAT) Conclusions published 12 December 2019. In response to this request, the Operator provided a document entitled A303 BATC Return Spreadsheet v2.
- 2.59. Permit Number EPR/FB3805GN/V005 issued on 25 March 2024 is the current authorisation for the Site. The EA varied and consolidated the permit and issued it in modern format.

3. PROPOSED DEVELOPMENT

- 3.1. The A303 processing facility will be split into two main sections.
- IBA processing facility; and
 - Enhanced IBA recovery facility.
- 3.2. Preparatory works will include groundworks and surfacing to extend the existing Site, as well as construction of the proposed replant and enhanced IBA recovery facility to be housed in separate buildings.
- 3.3. Within the proposed extension area, earthworks and groundworks to excavate the soils, reprofile the 8 m high northern bund to maximise the operational footprint, and raise the southern bund from 5 m high to 8 m high, will be progressively undertaken.
- 3.4. The existing boundary treatment will be extended around the surfacing of the extension area to ensure all surface water runoff is contained and directed to the existing Site lagoon.
- 3.5. The existing IBA recovery facility will continue to operate whilst the replant is being built and commissioned. Following completion of the replant the existing IBA processing plant will be deconstructed and removed from Site. The former processing plant area will then be reconfigured and used for stockpiling IBA.
- 3.6. The Site will be operated under the existing operating hours contained within the planning conditions for planning permission 20/01480/CMAN. Working hours will therefore continue to be in accordance with the following:
- No heavy goods vehicles shall enter or leave the site except between the following hours: 0700 – 2000 Monday to Friday and 0700 – 1400 Saturday;
 - No Incinerator Bottom Ash plant or machinery shall be operated except between the following hours: 0600 – 2000 Monday to Friday and 0600 – 1400 Saturday; and
 - There shall be no working on Sundays or recognised public holidays.

IBA Processing Facility

- 3.7. The incoming IBA has an elevated moisture content (approximately 22% to 24%) on arrival due to the quenching process at source. Imported material is tipped in the IBA reception area and subsequently stacked in windrows using an excavator. IBA is then stored in this form for six to eight weeks to allow hydration and carbonation reactions to occur. These reactions take up the high moisture levels and also result in a reduction of pH levels.
- 3.8. The maturation process is exothermic and results in stockpiles heating up to approximately 70°C. During dry weather, water is sprayed over the stockpiles to promote the ageing process, as well as to mitigate against any potential dust emissions.
- 3.9. Within the proposed replant building, there will be the IBA processing plant, skip storage and internal haul road for access of mobile plant. A floor plan of the proposed replant building is presented as Drawing No. C10101.
- 3.10. Processing comprises the screening and removal of metals before the material is re-blended and exported from the Site as a secondary / recycled aggregate product (IBAA).

- 3.11. Processing and treatment (conveying and screening) will take place within a steel-clad building. The elevations of the new building are shown on Drawing No. DR-0003.
- 3.12. A dust hood is located at the material loading point into the replant, preventing fugitive emissions from the loading area. Each transfer point of the IBA replant is enclosed so that the transfer between conveyors does not create dust emissions. The replant building does not contain any dust extraction, however the building is kept clean by way of an industrial vacuum which is hired, a number of times per year, to clean down the inside of the structures as and when necessary.
- 3.13. A loading shovel feeds the IBA into a feed hopper. A material feeder regulates the flow rate of material entering the plant. A primary magnet recovers the large ferrous metals, these are then sold on for recycling and reuse.
- 3.14. Screened material is directed up to a picking station where an operatives recover mixed oversize metals. The remaining materials discharged off the end of the conveyor are typically oversized brick and concrete, which will be crushed on Site. The remaining material continues to the aggregate processing plant.
- 3.15. A series of overband and drum magnets recover batteries (AAA and AA) and small ferrous metals which are present throughout the entire process, which are sold on for recycling and reuse.
- 3.16. Screens are used to split the material into a minimum of four sizes, typically: superfine, fine, medium and large. These four grades of material are then passed over a series of specialist equipment designed specifically for non-ferrous metal recovery (namely, eddy current separators and / or induction sorting machines). These non - ferrous fractions are sent to the enhanced IBA recovery facility in preparation for recycling.
- 3.17. The remaining material is clinker, which is blended back into the IBAA. The different grades of material are blended back together to form the fully processed Fortis IBAA. Fortis IBAA is marketed and sold successfully across the construction industry being exported from the Site by HGV for use in appropriate projects.
- 3.18. A process flow chart for the IBA Processing Facility (replant) is presented in Appendix 4.

Enhanced IBA Recovery Facility

- 3.19. Material will be delivered to the facility and will be tipped into the respective bays within the materials receipt hall, with the roller door closed to retain any dust emissions. The material receipt hall will be maintained under negative pressure.
- 3.20. The material receipt hall will have a misting system, and it will be protected by an LEV system which will vent externally to the atmosphere (emission point marked as EP1 on Drawing No. SD214).
- 3.21. Material will be stored in the materials receipt hall until enough material is stored for efficient batch processing within the plant.
- 3.22. The enhanced IBA recovery facility is split into two distinctly different processing technologies: a dry processing plant; and a wet processing plant.
- 3.23. The proposed layout of the enhanced IBA recovery facility is shown on Drawing No. SD214. Elevations of the proposed new building are shown on Drawing Nos. SD240 and SD241.

Dry Processing

3.24. The dry processing plant has four main sections

- Milling line;
- Sorting tower 1;
- Sorting tower 2; and
- ECS station.

3.25. A loading shovel feeds material into the milling line feed hopper. A material feeder regulates the flow rate of material entering the milling line. Material is milled to crush as much of the remaining IBA as possible. After milling, the material is screened before dropping into a holding bay.

3.26. Both sorting towers 1 and 2 are virtually identical in their construction. However, each tower is slightly adapted to focus on specific material sizes.

3.27. A loading shovel feeds material into the sorting tower feed hopper. A material feeder regulates the flow rate of material entering the sorting tower. Material is screened into four sizes: the screen sizes are selected according to material density. Each of the four fractions drop onto its own dedicated density separation table.

3.28. The density separation tables will separate the milled material into '*heavies*' and '*lights*'.

3.29. '*Lights*' will be shovel fed over an ECS station which will separate the IBA from aluminium.

3.30. Throughout the entire dry processing plant there are dust control measures in place which are described in DMP in Appendix 12. At every crucial step of the process there will be focused de-dusting equipment as well as dust extraction equipment. The dust-laden air from these extraction points will pass through a bag filter and collection system.

3.31. The dust extraction system operating in the dry separation plant area will vent externally to the atmosphere (emission point marked as EP2 on Drawing No. SD214).

Wet Processing

3.32. The wet processing plant has four main sections

- Wash barrel;
- Density barrel;
- ECS station; and
- Water treatment section.

3.33. A loading shovel feeds material into the wet processing plant feed hopper. A feeder regulates the flow rate of material entering the wet processing plant wash barrel. The wash barrel, rotates water and the material together, removing as much residual fine IBA as possible.

3.34. This washed material is then fed via a conveyor belt into the Density Barrel. The Density Barrel will separate the washed material into '*heavies*' and '*lights*'.

3.35. '*Lights*' will be fed via a conveyor belt over an ECS station. The ECS station will separate the larger IBA items from aluminium.

- 3.36. Throughout the entire wet processing plant, water is used to wash the material, remove fine IBA particles and separate the heavies' and 'lights. For the wet processing plant to operate efficiently, it is crucial that the water used throughout the process is suitably clean and of the correct density. By using cyclones, flocculants and mechanical presses, fine IBA particles are removed from the water. The density is checked and adjusted, where appropriate, before recirculating it back into the wet processing plant for reuse.
- 3.37. IBA outputs from both the dry processing plant (i.e. from the milling line, ECS station and dust extraction) and the wet processing plant (i.e. from the ECS station and the water treatment section) will be blended together with the standard IBA Processing Plant IBAA.
- 3.38. The enhanced recovery facility will be designed to process a maximum of 50,000 tonnes of IBA per annum, with all inputs to originate from the Operators own processing facilities, including the adjacent A303 site. It is estimated that some 9000 tonnes of material will be imported from the adjacent A303 site per annum.
- 3.39. A process flow chart for the enhanced processing facility is presented in Appendix 5.

Waste Acceptance Procedure

- 3.40. The waste types to be accepted at the Site are listed in Table 3.

Table 3: Waste Types

EWC code	Description
19 01 12	Bottom ash and slag other than those mentioned in 19 01 11
19 12 02	Waste that as ferrous metal is classed as absolute non-hazardous code, wastes from the mechanical treatment of waste
19 12 03	Waste that as non-ferrous metal is classed as absolute non-hazardous code, wastes from the mechanical treatment of waste.
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11.

- 3.41. The EA officer for the clients Ridham Dock IBA processing site, suggested that the correct EWC code for fine metals which are contaminated with other materials would be mixed code EWC 19 12 12. Therefore, we would propose that the following restriction is removed from the existing 19 12 12 code: incinerator Bottom Ash Aggregate (IBAA) returned to the site only
- 3.42. Waste shall only be accepted at the Site if:
- It is of a type listed in the permit;
 - It conforms to the description in the documentation supplied by the producer and holder;
 - Its chemical, physical and biological characteristics make it suitable for its intended storage and treatment; and
 - It is visually inspected on arrival at the Site to ensure that it complies with the permit requirements.

- 3.43. The maximum quantity of wastes permitted to be imported shall be less than 220,280 tonnes per year. According to the Stockpile Management Procedure (SMP), the capacity of the IBA storage area is as follows:
- IBA = 72,000t;
 - IBAA = 75,000t; and
 - Non-ferrous metals = 3,450t.

3.44. According to the existing permit, no waste shall be stored on Site for more than 12 months.

3.45. Site specific Waste Acceptance Procedures (WAP) are detailed in the SMP presented in Appendix 6.

Surfacing and Drainage

- 3.46. Enclosing the main Site is a concrete retaining wall 2.1 m in height for the most part, but also at 0.4 m high as a kerb which will act as a retaining feature for surface water runoff and fugitive emissions of the main Site. The enhanced IBA recovery facility will be in a building with the only paved area being kerbed to act as a retaining feature for surface water runoff. The only place where there will not be a retaining wall is the access / egress to and from the Site.
- 3.47. The construction proposals involve extending the impermeable surface to provide a fully sealed system for surface water management for the Site.
- 3.48. Surface water runoff captured on the existing Site and the extension yard area will be directed to the existing lagoon. The runoff water will be contained and available for reuse onsite; for either dust suppression or rewetting the IBA by spray irrigating the stockpile surfaces.
- 3.49. There will be limited surface water runoff generated within the extension area due to the presence of the enhanced IBA recovery building in which all storage and treatment activities will take place.
- 3.50. The Hydrological Impact Assessment (HIA) (AtkinsRealis, August 2025) produced to support the planning application summarised that, as with the existing Site, the eastern extension area will include water containment, storage and reuse measures for all working areas, which significantly reduce the risk of aquifer contamination.
- 3.51. The HIA recommended that as with the existing Site, containment measures for liquid runoff from trafficked areas and areas where IBA are IBA derived materials will be stored and processed should be designed and constructed in accordance with CIRIA C736.
- 3.52. An outline Drainage Strategy for the enhanced IBA recovery facility has been included within the Flood Risk Assessment. Overall, the Drainage Strategy comprises:
- New areas of impermeable containment surface comprising trafficked areas will drain to the existing lined main site lagoon to the west;
 - Rainwater run-off from building roofs will be collected in above ground linked storage tanks sited around the building perimeter, and used to augment the water supply to the lagoon when needed - there are fourteen clean water tanks proposed, each with a 30,000 litre capacity; and
 - Overflow from the above ground storage tanks (clean roof water only) will discharge to an infiltration sustainable drainage system (SuDS) sited to the south of the new building.

- 3.53. This strategy is informed by a Water Balance assessment carried out by AtkinsRéalis, which determines the water volume required for use, and required capacity for storage of water for the extended Site.
- 3.54. As currently, there will be no discharge of surface water off site to a watercourse or sewer. All wastewater is either reused on Site or removed from site by registered waste carriers.
- 3.55. The outline drainage strategy is presented in the FRA in Appendix 16.

Local Exhaust Ventilation Systems

- 3.56. As referenced previously, two LEV systems are proposed within the enhanced IBA recovery facility: one operating in the materials receipt hall; and a separate one within the dry separation plant area.
- 3.57. The material receipt hall will be maintained under negative pressure. The dust extraction system operating in the materials receipt hall will require the filtered air to vent externally to atmosphere (emission point EP1).
- 3.58. The proposed LEV system for the materials receipt hall has been appropriately sized to run at 80,000 m³/hr. It will comprise ductwork c/w extract grilles, dust control filter plant, extraction fans and a control system. A specification for the proposed dust filter units, centrifugal fan and ductwork is presented in Appendix 7.
- 3.59. The proposed LEV system for the dry separation plant has been appropriately sized to run at 45,000 m³/hr. It will comprise of several process extraction points, ductwork and a dust control bag filter consisting of 240 filter socks, with a compressed air sock cleaning system to remove buildup of dust material. The resulting clean air will be discharged externally to atmosphere (emission point EP2).
- 3.60. Both EP1 and EP2 will vent externally through separate louvres on the back wall of the enhanced IBA recovery facility.
- 3.61. With regards to monitoring of the LEV system, the following will be undertaken:
- Daily check - differential pressure on the filters (indicates if filter is blocked affecting air flow) is below target value;
 - Daily check - visual inspection to ensure no emissions visible at exhaust point;
 - Daily check - reverse jet "Pulse" air blowdown pressure is above target value;
 - Periodic air flow testing (14 months for LEV);
 - Annual emissions testing (2-5mg/Nm³); and
 - Filters to be changed dependent on differential pressure / daily inspection and upon periodic inspection frequency to be determined in practice).

Best Available Technique

- 3.62. The installation is operated in accordance with BAT. The existing BAT assessment, which was produced in accordance with BAT Conclusions for Waste Incineration dated 3 December 2019 and approved by the EA, has been updated by the Operator to include the enhanced IBA recovery facility.
- 3.63. There are no discharge points from Site either to sewer or controlled waters.

- 3.64. The filtration systems in the enhanced IBA recovery facility have been designed in order to ensure the channelled dust emissions to air are consistent with BAT. BAT-associated emission levels (BAT-AELs) for channelled dust emissions to air from the enclosed treatment of slags and bottom ashes with extraction of air are 2–5 (mg/Nm³).
- 3.65. The updated BAT assessment is presented in Appendix 8.

4. OPERATIONAL TECHNIQUES

- 4.1. Materials handling and storage will be in accordance with the EA Quick Guide 384_12 on the storing and treating of IBA. Incoming IBA will be stored outside in stockpiles as currently.
- 4.2. IBA processing will be conducted to optimise the recovery of all recyclable materials. Waste recovery will be achieved through efficient Site operations and plant processing. The replant and the enhanced IBA recovery facility will allow for better resource recovery compared to the existing situation.
- 4.3. The IBA processing operations are managed in accordance with the Site Process Manual (presented in Appendix 9) to ensure optimum recovery rate.
- 4.4. All IBAA will be sampled and tested in accordance with the ESA Protocol (A sampling and testing protocol for the assessment of hazard status of incinerator bottom ash. Environmental Services Association, January 2018) and the Site's Factory Process Control. IBAA will be marketed as a recycled construction material, whilst recognising that it remains a waste until placed in construction.
- 4.5. The IBAA will be supplied to the construction industry in accordance with the EA position statement 247 (using unbound IBAA in construction activities). Any non-conformances will be recorded within the Quality Management System (QMS). All test certificates will be available on request.
- 4.6. Treated and untreated IBA and the different fractions of treated IBA material will be handled and stored separately to avoid cross-contamination (e.g. using separate contained storage bays or areas). When mobile plant switches between handling unprocessed and processed materials, the operator must ensure that the bucket is clean after handling each material, in order to reduce the risk of contamination.
- 4.7. Adherence to EA guidance for materials handling and storage and the ESA guidance for sampling and testing is considered to represent BAT.
- 4.8. Procedures will be in place for the regular inspection and maintenance of storage areas and associated infrastructure, including Site surfacing, drainage systems and containment measures. Inspections will pay particular attention to signs of damage, deterioration and leakage. Records will be kept detailing action taken and any identified faults will be repaired as soon as practicable.
- 4.9. The daily inspection checklists are presented in the DMP in Appendix 12.

Waste Minimisation, Energy Efficiency and Preserving Raw Materials

4.10. All Site staff will be made aware of the waste hierarchy, which is (from most to least favourable option):

- **Prevention:** preventing and reducing waste generation;
- **Reuse and preparation for reuse:** giving the products a second life before they become waste;
- **Recycle:** any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes composting and it does not include incineration;
- **Recovery:** some waste incineration based on a political non-scientific formula that upgrades the less inefficient incinerators; and
- **Disposal:** processes to dispose of waste, i.e. landfill, some incineration, etc.

Raw Materials

4.11. Raw materials to be used at the Site are listed in Table 4. 'Maximum amount' refers to the maximum amount of raw material to be stored on the Site at any one time.

4.12. Material Safety Data Sheets (MSDS) for the flocculants and ferro silicon are presented in Appendix 15.

Table 4: Types and Amounts of Raw Materials and Consumption Rate at Design Load

Raw Material	Maximum amount (tonnes)	Storage facility	Annual consumption (tonnes/ annum)	Use of material
Mains water	-	n/a	4500	In-process and dust suppression
Diesel	18	Bunded tank	280	Use in mobile plant
Adblue	2	Bunded tank	18	Use in mobile plant
Anionic Flocculant - Superfloc A-130 (MSDS in Appendix 15).	1	Powder - inside wet plant in bags / pallets	2	Used to remove suspended solids in water system
Cationic Flocculant - Superfloc C-577 (MSDS in Appendix 15).	2	IBC's inside wet plant on portable bunds	6	Used to enhance solid / liquid separation
Atomised ferro silicon 15% (MSDS in Appendix 15).	24	Inside wet plant building in bags	180	Used to change the density of water
Lubrication oil	2	Oil stores	8	Used for plant maintenance
Limestone	1000	Stockyard	45000	Blended with the IBAA (refer to SMP).

Water Usage

- 4.13. Stockpiles of IBA will be sprayed with water for dust suppression and to promote the ageing process. All other Site surfaces will be wetted as necessary for dust suppression purposes.
- 4.14. The application of water for dust suppression will be controlled and closely monitored by the Site manager to ensure minimal surface water runoff is generated. Where possible, any surface runoff water will be re-used onsite for dust suppression.
- 4.15. Appropriate measures for the collection and containment of surface water and measures to prevent and minimise fugitive emissions will be employed.
- 4.16. Harvested rainwater and water recirculated within the Site will be used where possible. The Site also has a mains water supply.

Energy Efficiency

- 4.17. The replant process operation is similar to the existing plant; however technological advances have been integrated to improve energy efficiency and metals recovery which in turn will improve the quality of the IBAA.
- 4.18. The approach for the enhanced IBA recovery facility is to embed sustainability into the heart of the development through a range of design measures based on the 'Be Lean, Be Clean, Be Green' design hierarchy. Measures could include:
 - Building fabric to meet the minimum standards of Building Regulation Part L 2021;
 - Low air-permeability to ensure infiltration is minimised;
 - Efficient mechanical ventilation systems;
 - Heating and cooling will be provided by a highly efficient ASHP systems;
 - Efficient lighting strategy using LED type fittings with PIR control; and
 - Photovoltaic panels for onsite energy generation.
- 4.19. In accordance with the EPR regulations, the Operator shall:
 - Take appropriate measures to ensure that energy is used efficiently in the activities;
 - Take appropriate measures to ensure that water is used efficiently in the activities;
 - Maintain records of water used in the activities;
 - Review and record at least every four years whether there are suitable opportunities to;
 - Improve the energy efficiency of the activities;
 - Opportunities to improve the efficiency of water use; and
 - Take any further appropriate measures identified by a review.
- 4.20. Records of IBAA production and energy usage will be assessed on a regular basis by the Environment Department to monitor the efficiency of the Site.

Waste Minimisation

- 4.21. The very purpose of the development is processing a waste (IBA). The proposed changes to the Site will further minimise waste sent offsite for disposal and reduce the demand for primary aggregates used in construction. The Operator generates hundreds of thousands of tonnes of sustainable manufactured aggregate for the construction industry each year from the UK's energy from waste process, preserving the UK's natural resources.

- 4.22. The development will play an important and expanding role in providing sustainable, low carbon and low-cost aggregates to help us meet the UK's climate change targets, whilst preserving the world's natural resources.

Environmental Management System

- 4.23. The Site will continue to be operated in accordance with a written Environmental Management System (EMS). The Operator is accredited to industry recognised standards OHSAS 18001 Safety, ISO 14001 Environmental Management and ISO 9001 Quality Management.
- 4.24. A copy of the EMS manual (Issue 7, June 2025), the Site Process Manual (Issue 12, August 2025) and the current ISO14001 certificate are presented in Appendix 9.
- 4.25. The documents listed in Table 5, which are in turn listed in Table S1.2 (Operating Techniques) in the permit have been superseded with details of the replant and the enhanced IBA recovery facility. Therefore, as part of this permit variation application, Table S1.2 in the permit will need updating with the new document references provided in Table 5.

Table 5: Operating Techniques

Previous Document Reference	Updated Document Reference	Location of Updated Document
P11 Stockpile Management Procedure 2024 v9	P11 Stockpile Management Procedure July 2025 v10	Appendix 6 of this report.
A303 BATC Return Spreadsheet v2	A303 BAT Return Spreadsheet metals v2	Appendix 8 of this report.
A303 IBA Environmental Permit Boundary & Site Layout Plan', referenced FOR/EPB/02, dated 20/03/24	Environmental Permit Boundary and Site Layout Plan, Drawing No. DR-0007 dated 21/07/2025.	Refer to Drawings section of this report.
Daily Questionnaire – January 2021	Daily Questionnaire – August 2025.	Appendix 2 to DMP.
Environmental Risk Assessment – January 2021.	Environmental Risk Assessment – September 2025.	Appendix 14 of this report.
Site Process Manual (Issue 6) – June, 2020.	Site Process Manual (Issue 12) – August 2025	Appendix 9 of this report.
Dust and Odour Management: Control Scheme – January, 2021.	Dust Management Plan v5 - September 2025	Appendix 12 of this report.

Technically Competent Management

- 4.26. The appropriate technical competence is WAMITAB Level 4 medium risk operator competence for non-hazardous waste treatment and transfer. Up to date WAMITAB certificates (original certificate and continued competence certificate) for the technically competent manager are provided in Appendix 10.

Outline Closure Requirements

- 4.27. When the waste installation ceases to operate, all waste will be removed from the Site.
- 4.28. All waste processing equipment will be decommissioned in accordance with the manufacturer's recommendations.
- 4.29. The local EA officer will be invited for a Site visit to confirm that the environmental permit may be surrendered and agree the type of surrender application required.
- 4.30. The legal test for surrender is that the necessary measures have been taken to:
- To avoid a pollution risk resulting from the operation of the regulated facility; and
 - To return the site of the regulated facility to a satisfactory state, having regard to the state of the site before the facility was put into operation.
- 4.31. A permit surrender application will be submitted to the EA which will include an updated SCR.

5. RISK ASSESSMENTS AND MANAGEMENT PLANS

Fugitive Emissions of Dust, Mud, Litter and Pests

- 5.1. EA guidance provides that you must take measures to prevent the spread of dust, mud and litter from your Site.
- 5.2. The existing waste storage and treatment areas, and the proposed eastern extension area, will have an impermeable surface with sealed drainage.
- 5.3. The replant and the new enhanced IBA recovery facility will be housed in separate buildings.
- 5.4. Waste delivery or collection vehicles will not travel on unmade ground, thus the potential for the generation of dust, or for tracking mud onto the public highway is negligible. All vehicles will be required to use the wheel-wash prior to exiting the Site. Recycled surface water run-off will be used to damp down stockpiles and trafficked areas. Waste will be delivered to Site in sheeted vehicles.
- 5.5. Outside areas will be kept clear of litter and mud.
- 5.6. The risk of scavenging animals, scavenging birds and other pests arising from the Site and affecting the surrounding environment is highly unlikely due to the type of waste accepted on the Site. Should pests become a problem then specialist contractors will be engaged to address the problem.
- 5.7. The entire Site is fenced and bunded. There is a CCTV system operated on Site.
- 5.8. A questionnaire is completed daily by Site staff which includes an assessment of amenity issues. The questionnaire is appended to the DMP in Appendix 12.

Particulate Matter

- 5.9. The Operator uses a range of dust suppression methods that cover the whole Site:
 - They use a rain gun system to add water across the top of the IBA windrow to create a thatching effect to reduce wind-blown dust;
 - They employ a tractor and bowser to put water across the whole Site and incoming driveway;
 - Both processing plants will be located within separate buildings;
 - Water is added to the processed IBA as it exits the plant to ensure no fugitive dust as it falls into the stockpile; and
 - The enhanced IBA recovery facility is located within a fully enclosed building that will have a LEV dedusting system as appropriate.
- 5.10. Real-time monitoring is currently carried out using Turnkey Osiris monitors at two locations along the northwestern bund. The monitors are set up to send out alerts to key site staff when total suspended particles (TSP) levels breach the established threshold. This threshold is defined as TSP levels $\geq 200 \mu\text{g}/\text{m}^3$ sustained for at least 10 minutes when the wind direction is between 40° and 230° .
- 5.11. Through ongoing discussions between the Operator and the EA, a third Osiris unit is proposed to be located in the front field to the west of the Site which is used as an additional IBA storage area.

- 5.12. There are also four directional dust monitors to monitor the direction in which the dust is either leaving or entering the Site. These monitors are located to the North, East and 2 x to the South. The dust monitoring locations are shown on Drawing No. DR_0007.
- 5.13. A Dust Assessment (DustScan AQ, July 2025) produced for the planning application concluded that:
- “this assessment shows that the proposed development can be operated in a manner unlikely to cause significantly adverse dust impacts in its vicinity. With reference to best practice guidance, the overall impact of the proposed development is considered to be not significant”.*
- 5.14. From the Dust Assessment it has been noted that visible dust (>30µm) is normally deposited within 100 m of source. Finer dust (10-30µm) may travel up to 500m. The nearest permanent residential receptor is Owls Lodge Farm located approximately 900m to the north west.
- 5.15. A DMP has been produced for the Site. Adherence to the measures set out in the DMP will ensure that any significant dust emissions arising from the process are prevented from escaping the Site and giving rise to pollution of the environment or nuisance.
- 5.16. The Dust Assessment is presented in Appendix 11 and the DMP is presented in Appendix 12.

Noise

- 5.17. A Noise Impact Assessment (NIA) (24 Acoustics, July 2025) has been produced in accordance with BS 4142:2014+A1:2019 to support the permit variation application.
- 5.18. The NIA has been undertaken following extensive background noise surveys undertaken at the nearest residential receptors to the Site in March 2025 and detailed acoustic modelling of the noise emissions from the proposals.
- 5.19. The following assessment methodology has been used:
- A background noise survey has been undertaken to determine existing levels of background noise at the nearest residential properties to the Site;
 - An acoustic model of the operation has been developed based upon source-term data for the plant provided by manufacturers and vendors. This calculates the noise level from the operations at receptor locations taking into account geometric divergence, screening and ground and atmospheric attenuation; and
 - An assessment of the likely noise impact associated with the proposals has been undertaken, based upon the technical guidance contained within BS 4142.
- 5.20. The NIA concludes that:
- “The assessment has indicated that the proposals will result in a low noise impact at Owls Lodge which may be audible from time to time (e.g. between significant lulls in traffic movements) but with no adverse effect. The noise impact at the housing and hotel at Drayton Park will be negligible at all times”.*
- 5.21. Owing to the distance to sensitive land uses it is considered that noise will not be likely to have a significant impact on amenity in this location and a NMP has not been produced.
- 5.22. The NIA is presented in Appendix 13.

Odour

- 5.23. There is the potential for low level odour arising from the ageing process of the IBAA. Odour may occur when stockpiles are being exposed.
- 5.24. Detailed assessments indicate that it is reasonable to suggest that there is potential for IBAA odour to be detected at up to around 500 m from the facility.
- 5.25. As mentioned previously, this is significantly less than the distance to the nearest permanent residential receptor. The nearest permanent residential receptor is Owls Lodge Farm located approximately 900m to the north west.
- 5.26. The appropriate techniques to control dust, set out in the DMP, will also serve to control any potentially odorous emissions.

Environmental Risk Assessment

- 5.27. The potential impact of pollution for each aspect of the Site has been considered and tabulated, see Appendix 14 (Environmental Risk Assessment) including:
- Dust;
 - Odour;
 - Noise;
 - Flooding;
 - Accidents;
 - Groundwater;
 - Surface water;
 - Unauthorised access; and
 - Flooding.

Site Condition Report

- 5.28. Applications for IED installations for both bespoke and standard permits are required to include a SCR. Where there is the risk of contamination of surface or groundwater with hazardous substances, the SCR needs to be supplemented with a baseline report.
- 5.29. An SCR describes and records the condition of the land and groundwater at a site at particular points in time. It is to enable an operator to demonstrate that they have protected land and groundwater during the lifetime of the site and that the land is in a satisfactory state when it comes to surrender a permit.
- 5.30. It is necessary to complete sections 1 to 3 of the EA's template for a SCR² and submit it with an application for a new permit. Section 4 is to be completed with any changes to the activities.
- 5.31. The updated application SCR, which includes historic maps, is presented in Appendix 3.

² H5: Site condition report – guidance and templates (Version 3.00). Environment Agency, April 2013.

- 5.32. The eastern extension area will be used for the storage and treatment of IBA and metals from the processing of IBA only. Wastes, which are non-hazardous will be stored and treated in a fully enclosed building. There is therefore no pathway to the underlying ground or groundwater. There will be no point source emissions from the Site to land or water.
- 5.33. Due to the cationic flocculant having hazardous properties (refer to MSDS in Appendix 15), the SCR includes a Stage 1-3 assessment undertaken in accordance with:
- [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0506\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0506(01)&from=EN)
- 5.34. The cationic flocculant will be stored in the wet processing plant in the enhanced IBA recovery facility. The entire Site has an impermeable surface with a sealed drainage therefore there is no pathway to the underlying ground or groundwater.
- 5.35. With mitigation in place, the risk of contamination from the proposed changes to the waste installation will be low, therefore it is considered that it is not necessary to provide a baseline report (refer to ERA in Appendix 14).

6. INFORMATION

Records

- 6.1. Documents will be retained electronically where possible and will be:
- Legible;
 - Made as soon as reasonably practicable;
 - Documented in such a way that where amendments are made, the original record and any changes are all recorded and retrievable; and
 - Retained for the period of time stated in the permit or until permit surrender (in the case of off-site environmental effects and matters pertaining to the condition of land and groundwater).
- 6.2. The Operator will keep a record of weekly operational hours and Site attendance of technically competent management. It is necessary to record start and finish times of operations and arrival and departure times of the technically competent manager. The records must be available for the EA to inspect on request.

Reporting

- 6.3. All reports required to comply with the permit will be provided to the EA as required. The records and reports will be retained in accordance with the procedures outlined in the permit.

Notifications

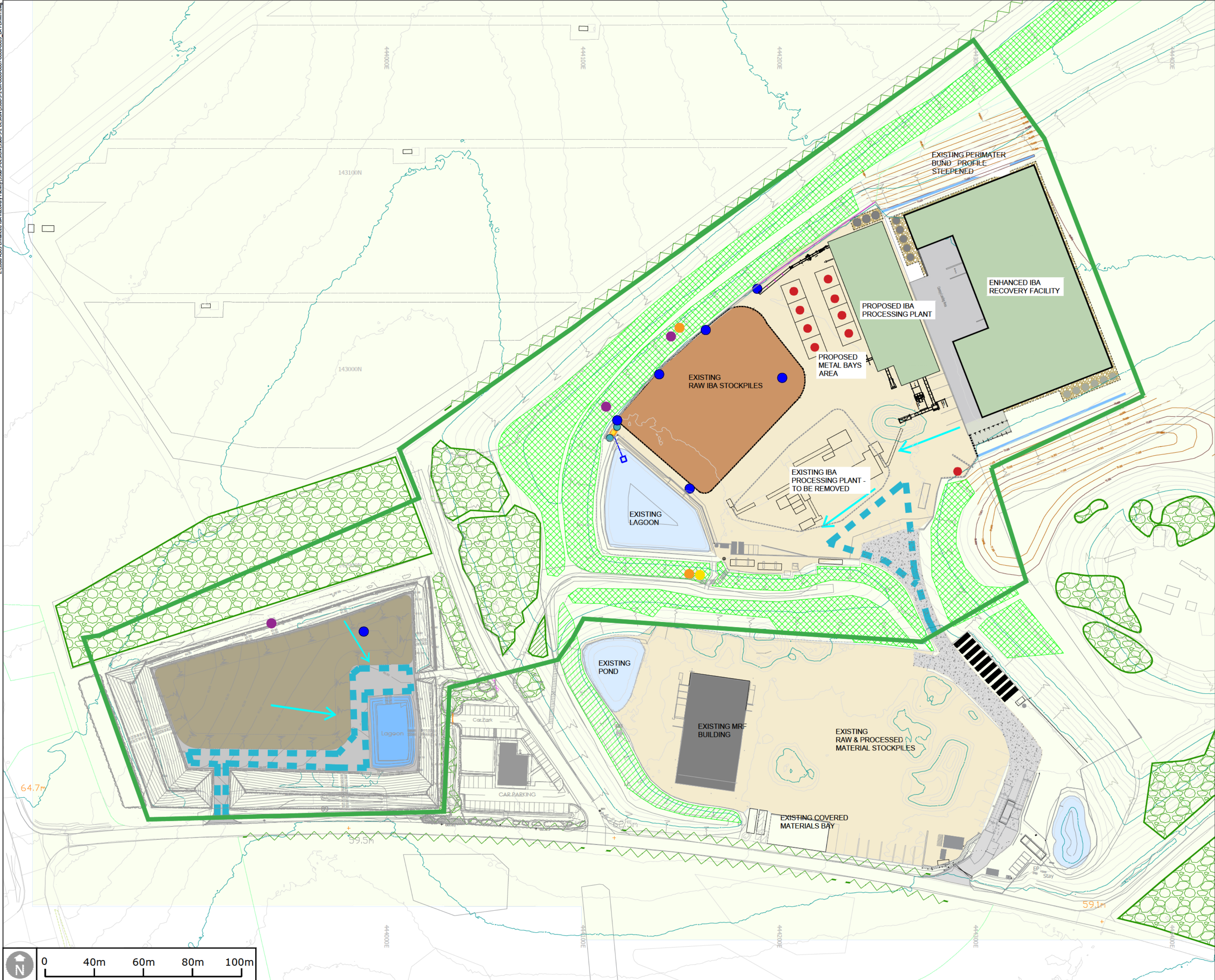
- 6.4. The Operator shall notify the EA without delay following the detection of:
- Any malfunction, breakdown or failure of equipment or techniques, accident or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
 - The breach of a limit specified in the permit; or
 - Any significant adverse environmental effects.
- 6.5. Written confirmation of actual or potential pollution incidents and breaches of emission limits shall be submitted within 24 hours. All notifications will be recorded and reported in line with Sections 6.1 and 6.2 above.

DRAWINGS

Environmental Permit Boundary	Drawing No. DR_0007	Scale 1:1250 @ A2
IBA Processing Replant	Drawing No. C10101	Scale NTS
Proposed Ground Floor Plan	Drawing No. SD214	Scale 1:200@A1
IBA Replant Building – plant elevations	Drawing No. DR-0003	Scale 1:200@A1
Proposed Elevation - East and South	Drawing No. SD240	Scale 1:250@A2
Proposed Elevation - North and West	Drawing No. SD241	Scale 1:250@A2

Z:\3388_A303 Enhanced IBA Recovery Facility\3388-5-2 DESIGN\3388-5-2 DR-0006-0007-0008-0009_EA PERMIT.dwg

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KEY

	APPLICATION BOUNDARY
	ENVIRONMENTAL PERMIT BOUNDARY
	EXISTING VEGETATION MATURE
	EXISTING VEGETATION RECENT PLANTATION
	EXISTING HEDGEROWS
	PROPOSED BUILDINGS
	HARD SURFACING TARMAC
	HARD SURFACING PERMEABLE
	WATER TANKS
	METAL STORAGE BAY
	DUST SUPPRESSION CANNON
	REAL TIME DUST MONITORING POINTS
	DIRECTIONAL TIME DUST MONITORING POINTS
	VISUAL MONITORING POINT
	SITE DRAINAGE
	FLOATING PUMP PONTOON
	PUMP CONTROL CONTAINER
	WATER TANK (2000 LITRES)
	FILTER DRAIN

Notes
related Drawings: DIA Drawing based on
BDR: ~25-0064-C10101 SITE PLAN LAYOUT A1.dwg received 11/07/2025
For more information refer to drawing 3388-5-2-0001

Rev.	Date	Description	Drawn	Checked
P1	17/07/2025	Planning issue.	JB	JB

Status

PLANNING

DAVID JARVIS ASSOCIATES

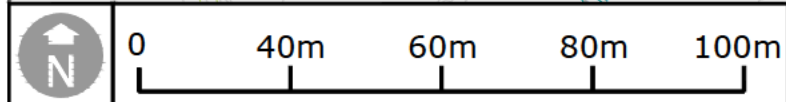
DAVID JARVIS ASSOCIATES LIMITED
1 Tennyson Street Swindon Wiltshire SN1 5DT
t: 01793 612173
e: mail@davidjarvis.biz
w: www.davidjarvis.biz

Client
RAYMOND BROWN

Project
A 303 ENHANCED IBA FACILITY

Drawing Title
Environmental Permit Boundary and Site Layout Plan

Scale 1:1250	Sheet Size A2	Date Plotted 21/07/2025	
Client Ref. -	Drawing Ref. 3388-5-2	Drawing No. DR-0007	Version S5-P1





Notes:

1. DO NOT SCALE FROM THIS DRAWING.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT.
3. THE DEVELOPMENT LAYOUT HAS BEEN TAKEN FROM FORTIS'S DRG. NO. FIBA-A303ME-SK008 REV 4 DATED 09-05-25 & THE SURVEY FROM FORTIS'S TOPOGRAPHICAL LAND SURVEY.

KEY

- CONCRETE SLAB
- ASPHALT
- GRASS
- FFL 70.100 CONCRETE SLAB LEVEL
- PROPOSED GRADIENT
- PROPOSED LEVEL
- EXISTING LEVEL
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- WATER TANKS ON CONCRETE SLAB (INDICATIVE LOCATION)
- HARD SURFACE PATH 1.5m WIDE
- INFILTRATION FILTER DRAIN
- WATER FLOW ROUTE

D	CAR PARK LEVELS UPDATED	SGS	CJM	06.08.25
C	MINOR AMENDMENTS	SGS	CJM	09.07.25
B	ASPHALT & IBA PLANT AREA UPDATED	SGS	CJM	19.06.25
A	FOR PLANNING	SGS	CJM	13.06.25
Rev	Description	Drm	Chk	Date

BdR 
Civil & Structural Engineering Consultants
The Old Engine House, Goblands Farm Business Park
Court Lane, Hadlow, Kent, TN11 0DP
Tel 01732 851416
email: engineering@bdr.uk.com

Client **FORTIS**
Preserving our Natural Resources

Project
A303 ENHANCED IBA RECOVERY
FACILITY, DRAYTON ROAD
BARTON STACEY, ANDOVER, SO21 3OS

Drawing
SITE PLAN LAYOUT

FOR PLANNING

Scale @ A1 1:500	Date 06.06.25	Drawn by SGS	Checked CJM
Job No. 25-0064	Drg. No. C10101	Rev D	



All drawings and Measurements are subject to a full site survey and Detailed Design of buildings on site. Dimensions should not be scaled off of this drawing.

Construction / Materials

- Internal walls to be 60/90 min fire-rated walls or partitions (subject to BC/ FE approval).
- External walls to be steel frame with corrugated metal cladding (final build-up to be confirmed by SE).
- Floor finishes TBC by client.
- Plant: Sealed concrete.
- Welfare, lab, WC: Screed with slip-resistant, hygienic vinyl (meets Part F and L requirements).

Rooflights

- Rooflights: 1.2 m x 2.4 m, aligned in groups.
- Spacing: Min. 3 m between groups (subject to structural design).
- No rooflights currently proposed over office or loading canopy.



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Corylus
 Planning &
 Environment Ltd

11/07/2018
 04/07/2018

@ Brian Beckett - updated
 @ Acquired Back

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01482 700000

Fortis BA Limited
 A 303 IBA Facility
 Proposed Ground Floor Plan

Size	Area	Volume	Weight	Value	Unit
847	52214	B			

Z:\3388 A303 Enhanced IBA Recovery Facility\3388-5-2 DESIGN\3388-5-2-DR-0003 plant elevations 11.dwg



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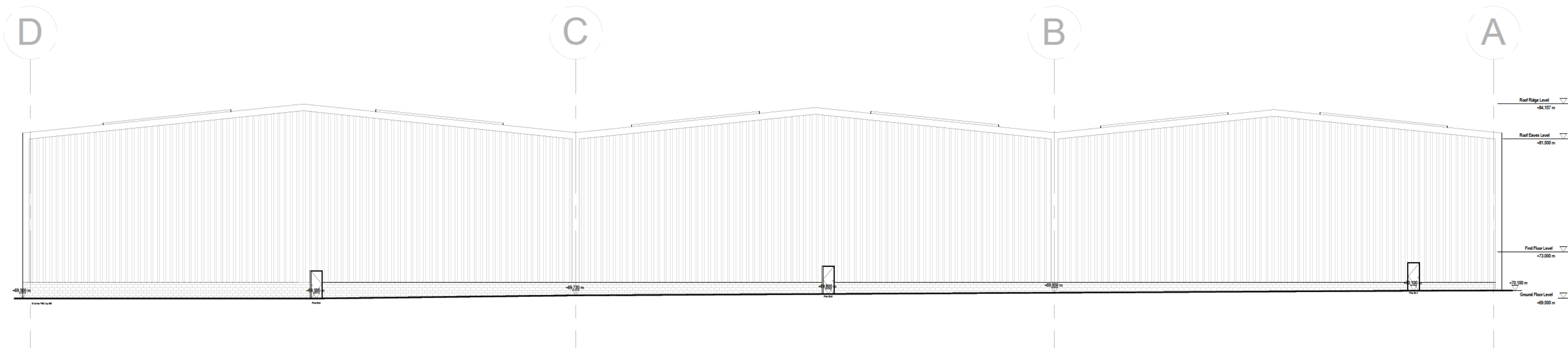
Related Drawings: DJA Drawing based on; FIBA-1303RP-SK001 A303 IBA PROCESSING
REPLANT

Rev.	Date	Description	Drawn	Checked
P1	18/07/2025	issued to client.	AB	JLB

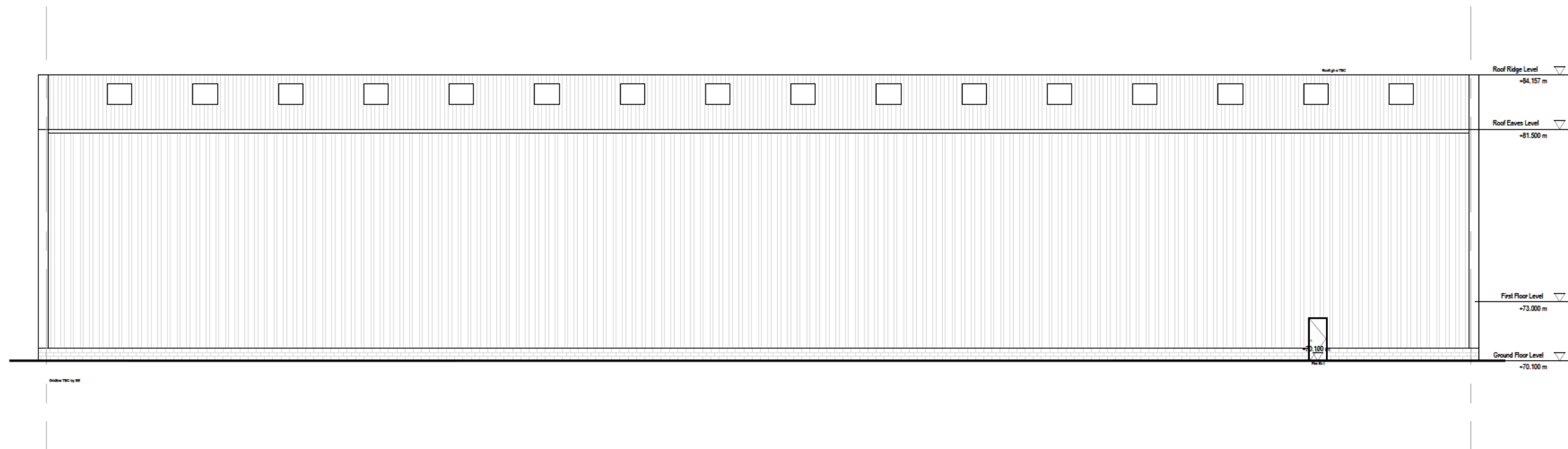
PLANNING

Scale 1:200	Sheet Size A1	Date Plotted 24/07/2025
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Client Ref.	Drawing Ref.	Drawing No.	Version
-	3388-5-2	DR-0003	S5-P1



North Elevation



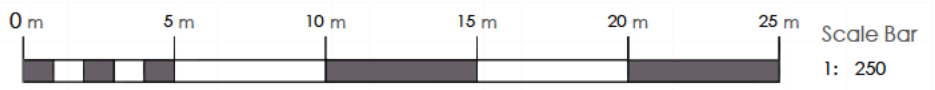
West Elevation

These Drawings are Intended for Planning Consultation Use They are not to be used for Construction or tendering.

All drawings and Measurements are subject to a full site survey and Detailed Design of buildings on site. Dimensions should not be scaled off of this drawing.

Material & Finishes

- All external cladding to be non-combustible (Approved Document B).
- Corrugated metal sheeting, colour RAL (TBC).
- Fair-faced blockwork plinth as shown.
- Double-glazed aluminium doors and windows, finish to match cladding.
- Roofing to be non-combustible, installed as per manufacturer fire rating.
- External colours and finishes to be agreed with client before construction.



rev:	B	11/07/25	(IM) Finish floor levels adjusted							
	A	date: 04/07/25	details:	(IM)	Adjusted floors					
			The Old Dairy Yarnworth Cheltenham Gloucestershire GL54 3LG tel: 01285 721072							
client: Fortis IBA Limited										
project: A 303 IBA Facility										
title: Proposed Elevation North and West										
scale:	1:250	date:	18/04/25	drawn by:	AP	checked by:	MC	date:	A2	
project ref:		847		dwg no:		SD241		rev:		B

APPENDIX 1

Non-Technical Summary

A303 IBA Facility - Non-Technical Summary.

Background

PDE Consulting Limited (the 'Agent') has been commissioned by Fortis IBA Limited (the 'Operator') to prepare and submit to the Environment Agency (EA) an application to vary an environmental permit for the A303 Enviropark, Drayton Road, Barton Stacey, Andover, Hampshire, SO21 3QS (the 'Site').

The installation permit allows the storage and treatment of Incinerator Bottom Ash (IBA) to create IBA Aggregate (IBAA).

The Operators existing A303 IBA processing operation is operated in accordance with Environmental Permit Number EPR/FB3805GN.

The proposals include the deconstruction and removal of the existing IBA processing plant and the construction of an upgraded, replacement plant (replant) within the current permit boundary. As well as a new, enhanced IBA recovery facility to be located within an eastern extension area, outside the current permit boundary.

Site Location and Surroundings

The A303 Enviropark is located approximately 8 kilometres (km) south east of the town of Andover, around 1.8 km north of the village of Barton Stacey and around 1.9 km south-east of the village of Longparish. It is access of the Longparish to Barton Stacey Road (Drayton Road). The National Grid Reference (NGR) for the approximate centre of the Site is SU 44320 43053.

The Enviropark currently comprises a Materials Recycling Facility (MRF) and associated offices and car park, operated by R Collard located in the southern and western part. The IBA recycling facility operated by Fortis is in the northern part and an associated IBA storage area located to the west of the IBA and MRF processing areas. The Enviropark extends across an area of approximately 10 hectares including landscaped areas.

Immediately to the north of the Enviropark is a solar farm. To the east, a shooting school and a gas pipeline service station. To the south-east, a go karting club, and to the south, open space controlled by the Ministry of Defence (MoD) which is bordered by the A303. To the west of Drayton Road lies further MoD controlled land.

The Site is remote from housing or other sensitive development. A hotel (Travelodge) and residential caravan park (Drayton Manor Park Homes) are located on the A303 westbound carriageway (Barton Stacey Bypass) approximately 315 m and 350 m to the south west of the Site respectively, alongside a service station.

The nearest permanent residential receptor to the Site is Owls Lodge Farm located approximately 900m to the north west of the Site.

Environmental Site Setting

The bedrock geology comprises the Seaford Chalk Formation which is designated by the EA as a Principal Aquifer. Superficial deposits comprise Head Deposits in the western part of the Site.

The Site is not located within a groundwater Source Protection Zone. There are reported to be no groundwater abstractions licences within 1 km of the Site.

There are no watercourses within 500 m of the Site. The Site is located within Flood Zone 1 (lowest risk).

The Site is not located within an Air Quality Management Area (AQMA).

The Site is not located within any international, national or local ecological designation. Two nationally designated sites for nature conservation are located within 2 km of the Site:

- The River Test Site of Special Scientific Interest (SSSI) lies approximately 0.7 km north and 0.8 km south; and
- The East Aston Common SSSI is located approximately 1.4 km northeast of the Site.

Six Sites of Importance for Nature Conservation (SINC) have been identified within 2 km of the Site, the closest being Longparish Cornfields SINC some 0.13 km to the north, a grassland supporting several notable species.

There are no internationally designated sites within 10 km of the Site.

Operational Details

Replant

The replant will be operated within a generally enclosed building for improved environmental management.

A loading shovel will feed the IBA into a feed hopper where the feeder then regulates the flow rate of material entering the plant.

The IBA will then flow through a number of conveyors, screens and separation processes to remove the ferrous and non-ferrous metals. Any oversize material will be crushed (within the replant building) and re-fed back into the process.

A picking station has also been included within the replant building to improve the recovery of any remaining metals.

The residual material from each of the fractions produced is discharged into a common storage area and forms the IBAA.

The non-ferrous fraction will be transferred onsite to be further refined in the adjacent, enhanced IBA recovery facility.

Enhanced IBA Recovery Facility

The enhanced IBA recovery facility will take place within a fully enclosed building, comprising a material receipt and storage area, dry and wet separation plants and finished products storage area.

The imported feed material (screened IBA / non-ferrous fraction) to the enhanced IBA recovery facility will be delivered to the facility at operationally efficient (fine and coarse) fraction sizes. The finer feed material will be processed through a dry separation plant, including various conveying and screening processes, using specialist de-dusting extraction equipment to liberate metals and maximise IBA recovery.

The coarser feed material will be processed through a wet separation plant. The material is washed and the water removed via a de-watering screen. This water is recycled within a closed loop system, water being stored in tanks within the building.

Recovered IBA residue will be returned to the adjacent IBA recycling site for use in IBAA. The recovered metals from the enhanced IBA recovery facility are then ready for export and onward recycling. It is proposed that all recovered non-ferrous metals will be stored undercover to prevent product degradation.

Exported IBAA and metals will be transported by road lorries via the existing haul road and weighbridge.

The enhanced IBA recovery facility will be designed to process a maximum of 50,000 tonnes of IBA per annum, with all inputs to originate from Fortis' own processing facilities, including the adjacent A303 site. It is estimated that some 9000 tonnes per annum of material will be imported from the adjacent A303 site.

The non-hazardous wastes to be accepted for processing at the Site will be classed under the EWC codes listed in Table 1.

Table 1 Proposed Waste Codes

EWC code	Description
19 01 12	Bottom ash and slag other than those mentioned in 19 01 11
19 12 02	Waste that as ferrous metal is classed as absolute non-hazardous code, wastes from the mechanical treatment of waste
19 12 03	Waste that as non-ferrous metal is classed as absolute non-hazardous code, wastes from the mechanical treatment of waste.
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11.

The maximum quantity of wastes permitted to be imported shall be less than 220,280 tonnes per year. The capacity of the IBA storage area is as follows:

- IBA = 72,000t;
- IBAA = 75,000t; and
- Non-ferrous metals = 3,450t.

No waste shall be stored for more than 12 months.

Emissions

There will be no discharge of surface water off site to a watercourse or sewer. All wastewater is either reused on Site or removed from site by registered waste carriers.

There will be two point source emissions to air from the enhanced IBA recovery facility: one serving the dust extraction system in the materials receipt hall; and one serving the dust extraction system operating in the dry separation plant.

The bag filters in the materials receipt hall and the dry separation plant will be designed in order to ensure that dust emissions are between 2-5 mg/Nm³.

Management

The Site will be operated by Technically Competent Management who will operate the Site in accordance with the environmental permit, an Environmental Management System (EMS) which is accredited to ISO 14001 and the planning permission.

The Site will be operated under the existing operating hours contained within the planning conditions for planning permission 20/01480/CMAN. Working hours are therefore proposed to be in accordance with the following:

- No heavy goods vehicles shall enter or leave the site except between the following hours: 0700 – 2000 Monday to Friday and 0700 – 1400 Saturday.
- No Incinerator Bottom Ash plant or machinery shall be operated except between the following hours: 0600 – 2000 Monday to Friday and 0600 – 1400 Saturday. There shall be no working on Sundays or recognised public holidays.

APPENDIX 2

EPR Application Forms

Application for an environmental permit

Part A – About you



You will need to complete this part of the application form if you are applying:

- for a new permit
- to vary (change) an existing permit
- to surrender your permit
- to transfer an existing permit to yourself

Visit our website to check this is the latest version of the form: <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-a-about-you>.

Please read through the form before completing it. We expect it will take less than 1 hour to complete if you have all the necessary information available.

The form can be:

1. Saved onto a computer and then filled in.

We recommend you use an Adobe Acrobat product to complete the form. You may not be able to complete the form using different software, such as a PDF reader built into your internet browser.

2. Printed off and filled in by hand. Please write clearly in the answer spaces.

Contents

Section 1: About you

Section 2: Applications from an individual

Section 3: Applications from groups of individuals

Section 4: Applications from public bodies or public corporations

Section 5: Applications from government departments

Section 6: Applications from registered companies, limited liability partnerships and other corporate bodies

Section 7: Contact details

Section 8: How to contact us

Section 9: Where to send your application

Section 10: Feedback

Appendix 1: Date of birth information for installation and waste activities (applications for a new permit or transferring a permit and variations to a waste activity) only

Section 1: About you

About you

Tick the box that describes you as the applicant.

- ☐ An individual. Now go to **section 2**.
- ☐ A group of individuals. Now go to **section 3**.
- ☐ A public body or public corporation. Now go to **section 4**.
- ☐ A government department. Now go to **section 5**.
- ☒ A registered company, limited liability partnerships or other incorporated body. Now go to **section 6**.

To apply, you must be the legal operator of the activity or facility. See: <https://www.gov.uk/guidance/legal-operator-and-competence-requirements-environmental-permits#what-a-legal-operator-is>

Section 2: Applications from an individual

2.1 Name of applicant

Title (optional)

First name

Last name

2.2 Address of applicant

Address

Postcode

Use a business address where possible. Otherwise use a personal address. Individuals based overseas must provide an address for service in the UK.

Now go to **section 7: Contact details**

Section 3: Applications from groups of individuals

Examples of groups of individuals include:

- individuals acting jointly
- individuals that are partners in a general or limited partnership (but not a limited liability partnership)
- unincorporated charities, trusts and associations, (unless recognised as a legal person)

3.1 Trading or organisation name (if any)

Note: we can only issue and transfer permits to named individuals and not to trading or organisation names

3.2 Organisation type

For example, individuals acting jointly (e.g. a club), general partnership, unincorporated charity

3.3 Charity Commission registration number (if any)

Some individuals or groups of individuals with recognised charitable status are entitled to reduced permit fees for certain water discharge activities. We need the Charity Commission registration number to check if this applies to this application.

3.3 Companies House or Limited Liability Partnership number

3.4 Names and addresses of individuals

Provide the names and addresses of all individuals acting jointly, or in a general or limited partnership. Enter the name and address of the first individual. Provide a continuation sheet for all remaining individuals.

For corporate partners in a general or limited partnership, provide the company name and registration number on the continuation sheet.

For unincorporated trusts, charities and associations, provide the name and address of the nominated representative who will hold the permit in the organisation's name and all individuals that form the governing body, for example trustees. Use a continuation sheet as necessary.

Section 3: Applications from groups of individuals, continued

3.4a Name of first individual

Title (optional)

First name

Last name

3.4b Address of first individual

Address

Postcode

Use a business address where possible. Otherwise use a personal address. Individuals based overseas must provide an address for service in the UK.

3.4c Continuation sheet

Document reference of continuation sheet (if any):

Now go to **section 7: Contact details**

Section 4: Applications from public bodies or public corporations

4.1 Name of public body or corporation

4.2 Type of public body or corporation

For example, local government body, executive agency, non-departmental public body

4.3 Charity Commission number (if any)

Section 4: Applications from public bodies or public corporations, continued

4.4 Address of public body or corporation

Address

Postcode

Now go to **section 7: Contact details**

Section 5: Applications from government departments

5.1 Title of Secretary of State for relevant department

Title

For example, Secretary of State for Environment, Food and Rural Affairs

5.2 Address of the government department

Address

Postcode

Now go to **section 7: Contact details**

Section 6: Applications from registered companies, limited liability partnerships and other corporate bodies

6.1 Name of company, limited liability partnership or other incorporated body

Fortis IBA Limited

6.2 Type of incorporated body

Private Limited Company

For example, private limited company, public limited company, limited liability partnership, incorporated society, charitable incorporated organisation or community interest company

6.3 Companies House registration number (if any)

10659382

6.4 Charity Commission number (if any)

6.5 Additional information if not registered with Companies House or The Charity Commission

If you are not registered with Companies House or The Charity Commission, supply:

- evidence that your company or corporate body is a legal entity
- a description of how you will be the legal operator if you are an overseas company without a UK presence.

This does not apply to variations or surrender applications.

Document reference for evidence/description:

Evidence of legal entity could, for example, include:

- a copy of your Certificate of Incorporation for companies.
- a copy of your Memorandum and Articles of Association for incorporated charities and trusts

Section 6: Applications from registered companies, limited liability partnerships and other corporate bodies, continued

6.6 Principal address or Registered Office of registered company, limited liability partnership or other incorporated body

Address

2nd Floor, Fryern House Winchester Road, Chandler's Ford, Eastleigh.

Postcode

SO53 2DR

For registered companies and limited liability partnerships this is the office address registered with Companies House. For other incorporated bodies use your principal business address or the address registered with The Charity Commission.

6.7 Main business address of registered company, limited liability partnerships or other incorporated body

Address

Postcode

Your main UK business address is required only if your principal or registered office address is overseas.

Now go to **section 7: Contact details**

Section 7: Contact details

7.1 Application contact

Provide the details of someone we can contact about your application. The person must have the authority to act on your behalf.

Title (optional)

First name

Suzanne

Last name

Walsh

Position

Principal Consultant

Address

PDE Consulting Limited
The Alaska Building
Shrewsbury Business Park
Shrewsbury

Postcode

SY2 6LG

Phone number

07889 602895

Email

suzanne@pdeconsulting.co.uk

- ☐ Tick if you would like all general communication about this application sent to the above email address.

7.2 Contact for receipt of official documents

This question does not apply to applications from individuals acting jointly

Provide the details of someone we can send official documents to, such as notices and copies of permits. For companies this must be a company secretary, clerk or a director.

For partnerships, this must be a person with control or management of the partnership.

- ☐ Tick if the contact is the same as in question 7.1 (application contact). Otherwise complete the details below.

Section 7: Contact details, continued

Title (optional)

First name

Wayne

Last name

Roberts

Position

Secretary / Director

Email

wayne.roberts@raymondbrown.co.uk

Telephone number

02380 273750

7.3 Operational contact

This is optional for variations and surrenders. We use this information to help us know who to contact about operations at the site, returns and reporting.

☐ Contact details are the same as question 7.1 (application contact)

☐ Contact details are the same as question 7.2 (contact for receipt of official documents)

Otherwise complete the details below.

Title (optional)

First name

Mark

Last name

Renault

Address

2nd Floor, Fryern House Winchester Road, Chandler's Ford, Eastleigh.

Postcode

SO53 2DR

Phone number

07860 213633

Section 7: Contact details, continued

Email

mark.renault@raymondbrown.co.uk

7.4 Billing contact

Provide a billing contact where we can send invoices, such as the annual subsistence charge

- ☐ Contact details are the same as question 7.1 (application contact)
- ☐ Contact details are the same as question 7.2 (contact for receipt of official documents)
- ☒ Contact details are the same as question 7.3 (operational contact)

Otherwise complete the details below.

Title (optional)

First name

Mark

Last name

Renault

Position

Environmental Permitting Manager

Address

2nd Floor, Fryern House Winchester Road, Chandler's Ford, Eastleigh.

Postcode

SO53 2DR

Phone number

07860 213633

Email

mark.renault@raymondbrown.co.uk

Now fill in Appendix 1 if you are applying for a new permit or transferring a permit for an installation or waste activity.

This does not apply to applications from public bodies, statutory corporations or government departments.

Section 8: How to contact us

If you have difficulty filling in this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: www.gov.uk/government/organisations/environment-agency

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it. More information on how to do this is available at: www.gov.uk/government/organisations/environment-agency/about/complaints-procedure

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Section 9: Where to send your application

Send one electronic copy of your completed application via email to:

- PSC-WaterQuality@environment-agency.gov.uk for water discharge activities
- PSC@environment-agency.gov.uk for waste or installation activities
- flood.permitting@environment-agency.gov.uk for flood risk activities

Alternatively send one paper copy of your application to:

Integrated Permitting Services
Environment Agency
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

Section 10: Feedback

We want to make our forms easy to fill in and easy to understand. Please use the space below to give us any comments that you may have about this form. (You don't have to answer this part of the form, but it will help us improve our forms if you do.)

How long did it take you to fill in this form?

We will use your feedback to improve our form. Would you like a reply to your feedback?

- ☐ Yes please
- ☐ No thank you

Appendix 1: Date of birth information for installation and waste activities (applications for a new permit or transferring a permit and variations to a waste activity) only

This appendix applies to installation and waste operation activities. Only complete if you are applying for a new permit or to transfer an existing one. This does not apply to applications from public bodies, public corporations and government departments

Dates of birth information in this appendix will not be put onto our Public Register

1 Are you applying as an individual; group of individuals; or a registered company, Limited liability partnership or other incorporated body?

- ☐ An individual. Now go to 2.
- ☐ A group of individuals. Now go to 3.
- ☒ A registered company, limited liability partnership or other incorporated body. Now go to 4.

2 Applications from an individual

Title (optional)

First name

Last name

Date of birth (DD/MM/YY)

3 Applications from a group of individuals

Provide the names and dates of birth of all individuals acting jointly, or in a general or limited partnership.

For unincorporated trusts, charities and associations provide the name and date of birth of all individuals that are part of the group's controlling or guiding mind. For example:

- trustees
- chairperson
- treasurer
- secretary
- or a person with a similar position

Provide a continuation sheet where necessary.

First individual

Title (optional)

First name

Last name

Date of birth (DD/MM/YY)

Second individual

Title (optional)

First name

Last name

Date of birth (DD/MM/YY)

Third individual

Title (optional)

First name

Last name

Date of birth (DD/MM/YY)

Fourth individual

Title (optional)

First name

Last name

Date of birth (DD/MM/YY)

Continuation sheet for additional individuals or corporation

Document reference of continuation sheet (if any):

4 Applications from registered companies, limited liability partnership or other incorporated bodies

For registered companies provide the names and dates of birth of all directors and any company secretary.

For limited liability partnerships provide the names and dates of birth of all partners.

For other incorporated bodies provide the name and date of birth of all individuals that are part of the body's controlling or guiding mind. For example:

- trustees
- chairperson
- treasurer
- secretary
- or a person with a similar position

Use a continuation sheet where necessary.

Provide the company name and registration number on a continuation sheet for any corporate:

- directors
- company secretaries
- partners

First person

Title (optional)

First name

Wayne

Last name

Roberts

Position

Secretary / Director

Date of birth (DD/MM/YY)

Second person

Title (optional)

First name

Stephen

Last name

Clasby

Position

Director

Date of birth (DD/MM/YY)

Third person

Title (optional)

First name

Lee

Last name

Thompson

Position

Director

Date of birth (DD/MM/YY)

Fourth person

Title (optional)

First name

Last name

Position

Date of birth (DD/MM/YY)

Continuation sheet for additional people

Document reference of continuation sheet (if any):

Application for an environmental permit

Part B3 – New bespoke installation permit



Environment
Agency

If you are applying for a new bespoke permit for an installation, fill in this part of the form, together with parts A, B2 and F1.

Please check that this is the latest version of the form available from our website.

Please read through this form and the guidance notes that go with it.

If you are applying for a permit for an intensive farm do not use this form, but complete application form part B3.5 instead.

The form can be:

- 1) saved onto a computer and then filled in. Please note that the form follows a logic that means questions will open or stay closed depending on a previous answer. So you may not be able to enter text in some boxes.
- 2) printed off and filled in by hand. Please write clearly in the answer spaces.

It will take less than three hours to fill in this part of the application form.

Contents

- [1 What activities are you applying for?](#)
- [2 Point source emissions to air, water and land](#)
- [3 Operating techniques](#)
- [4 Monitoring](#)
- [5 Environmental impact assessment](#)
- [6 Resource efficiency and climate change](#)
- [8 How to contact us](#)
- [Appendix 1 – Specific questions for the combustion sector](#)
- [Appendix 2 – Specific questions for the chemical sector](#)
- [Appendix 3 – Specific questions for the waste incineration sector](#)
- [Appendix 4 – Specific questions for the landfill sector and recovery of hazardous waste on land activities](#)

1 What activities are you applying for?

Fill in Table 1a below with details of all the activities listed in schedule 1 or other references (see note 1) of the Environmental Permitting Regulations (EPR) and all directly associated activities (DAAs) (in separate rows), that you propose to carry out at the installation.

Fill in a separate table for each installation you are applying for. Use a separate sheet if you have a long list and send it to us with your application form. Tell us below the reference you have given the document.

Document reference

1 What activities are you applying for?, continued**Table 1a – Types of activities**

Schedule 1 listed activities						
Installation name	Schedule 1 or other references (See note 1)	Description of the activity (See note 2)	Activity capacity (See note 3)	Annex I (D codes) and Annex II (R codes) and descriptions	Hazardous waste treatment capacity (if this applies) (See note 3)	Non-hazardous waste treatment capacity (if this applies) (See note 3)
If there are not enough rows, send a separate document and give the document reference number here	Put your main activity first			For installations that take waste only	For installations that take waste only	For installations that take waste only
A303 IBA Facility	S5.4 Part A(1) (b)	Recovery or a mix of	1216	R4, R5		1216
Directly associated activities (See note 4) Also note: if the DAA is a Medium Combustion Plant or Specified Generator (MCP/SG) please also fill in part B2.5, (see https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b25-new-bespoke-medium-combustion-plant-and-specified-generator-permit)						
Name of DAA If there are not enough rows, send a separate document and give the document reference number here		Description of the DAA (please identify the schedule 1 activity it serves)				
For installations that take waste (See note 5 below)		Total storage capacity				150000
		Annual throughput (tonnes each year)				220280

1 What activities are you applying for?, continued

Notes

1. Quote the section number, part A1 or A2 or B, then paragraph and sub-paragraph number as shown in EPR part 2 of schedule 1, schedule 13 and 14 for Local Authority regulated activities, or schedule 25/25B for Medium Combustion Plant or Specified Generators.
2. Use the description from the relevant schedule of the regulations. Include any extra detail that you think would help to accurately describe what you want to do.
3. By ‘capacity’, we mean:
 - the total incineration capacity (tonnes every hour) for waste incinerators
 - the total landfill capacity (cubic metres) for landfills
 - the total capacity (cubic metres) for the recovery of hazardous waste on land
 - the total treatment capacity (tonnes each day) for waste treatment operations
 - the total storage capacity (tonnes) for waste storage operations
 - the processing and production capacity for manufacturing operations, or
 - the thermal input capacity for combustion activities

Fill each listed activity as a separate line and give an accurate description of any other activities associated with your schedule 1 activities. You cannot have Directly Associated Activities (DAAs) as part of a mobile plant application. If the DAA is a Medium Combustion Plant or Specified Generator (MCP/SG) please fill in the table in appendix 1 question 13.

By ‘total storage capacity’, we mean the maximum amount of waste, in tonnes, you store on the site at any one time.

Types of waste accepted

For those installations that take waste, for each line in Table 1a (including DAAs), fill in a separate document to list those wastes you will accept on to the site for that activity. Give the List of Wastes catalogue code and description (see <https://www.gov.uk/government/publications/waste-classification-technical-guidance>).

If you need to exclude waste from your activity or facility by restricting the description, quantity, physical nature, hazardous properties, composition or characteristic of the waste, include these in the document. Send it to us with your application form.

Please provide the reference for each document.

You can use Table 1b as a template.

If you want to accept any waste with a code ending in 99, you must provide more information and a full description of the waste in the document, (for example, detailing the source, nature and composition of the waste). Where you only want to receive specific wastes within a waste code you can provide further details of the waste you want to receive. Where a waste is dual coded you should use both codes for the waste.

Document reference of this extra information	19 01 12, 19 12 02, 19 12 03, 19 12 12.
--	---

1 What activities are you applying for?, continued**Table 1b – Template example – types of waste accepted and restrictions**

Waste code	Description of the waste
Example	Example
02 01 08*	Agrochemical waste containing hazardous substances
18 01 03*	Infectious clinical waste, not contaminated with chemicals or medicines – human healthcare (may contain sharps) for alternative treatment
17 05 03*/17 06 05*	Non-hazardous soil from construction or demolition contaminated with fragments of asbestos cement sheet

1c Recovery of hazardous waste on land

Are you applying for a waste recovery activity involving the permanent deposit of inorganic hazardous waste on land for construction or land reclamation?

No ☒ Now go to question 2

Yes ☐

Have you written a waste recovery plan (WRP) that shows that you will use waste to perform the same function as non waste materials you would have used?

No You must write a WRP to support your application.

Yes

Have we advised you during pre-application discussions that we believe the activity is waste recovery?

No

Yes

Have there been any changes to your proposal since the discussions?

No

Yes

Please send us a copy of your current waste recovery plan that complies with our guidance at <https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-recovery-plans-and-deposit-for-recovery-permits>. You need to highlight any changes you may have made since your pre-application discussions.

Document reference

Please note that there is an additional charge for the assessment or re assessment of a waste recovery plan that must be submitted as part of this application. For the charge see <https://www.gov.uk/government/publications/environmental-permitting-charges-guidance/environmental-permitting-charges-guidance>

2 Point source emissions to air, water and land

Fill in Table 2 below with details of the point source emissions that result from the operating techniques at each of your installations.

Fill in one table for each installation, continuing on a separate sheet if necessary.

Table 2 – Emissions (releases)

Installation name	A303 IBA Facility			
Point source emissions to air				
Emission point reference and location	Source	Parameter	Quantity	Unit
EP1	Materials	Dust		2-5 mg/nm ³
EP2	Dry Separation	Dust	2-5	mg/nm ³
Point source emissions to water (other than sewers)				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				
Point source emissions to sewers, effluent treatment plants or other transfers off site				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				
Point source emissions to land				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				

You will also need to complete application form part B6 if your installation includes a point source emission(s) to:

- water
- groundwater or
- sewer

Supporting information

3 Operating techniques

3a Technical standards

Fill in Table 3a for each activity at the installation you refer to in Table 1a above and list the ‘Best Available Techniques’ you are planning to use. If you use the standards set out in the relevant BAT conclusion(s), BAT reference document(s) (BREF) and/or technical guidance(s) (TGN) there is no need to justify using them within your documents in Table 3a.

For Part A(2) activities refer to <https://www.gov.uk/government/collections/integrated-pollution-prevention-and-control-sector-guidance-notes> and for Part B and Schedule 14 activities see <https://www.gov.uk/government/collections/local-air-pollution-prevention-and-control-lappc-process-guidance-notes>

You must justify your decisions in a separate document if:

- there is no technical standard
- the technical guidance provides a choice of standards, or
- you plan to use another standard

This justification could include a reference to the Environmental Risk Assessment provided in part B2 (General bespoke permit) of the application form.

For each of the activities listed in Table 1a, the documents in Table 3a should summarise:

- the operations undertaken
- the measures you will use to control the emissions from your process, as identified in your risk assessment or the relevant BAT conclusions, BREF or technical guidance
- how you will meet other standards set out in the relevant BAT conclusions document, BREF or technical guidance

Table 3 – Technical standards

Fill in a separate table for each activity at the installation.

Installation name	A303 IBA Facility	
Description of the schedule 1 activity or directly associated activity	Best available technique (BATC, BREF or TGN reference) (see footnote below)	Document reference (if appropriate)
Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity	BAT Conclusions for Waste Incineration dated 3 December 2019	

* Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control)

In all cases, describe the type of facility or operation you are applying for and provide site infrastructure plans, location plans and process flow diagrams or block diagrams to help describe the operations and processes undertaken. Give the document references you use for each plan, diagram and description.

Document reference

Permit Variation Application.

3b General requirements

Fill in a separate Table 4 for each installation.

Table 4 – General requirements

Name of the installation	A303 IBA Facility
If the technical guidance or your risk assessment shows that emissions of substances not controlled by emission limits are an important issue, send us your plan for managing them	Document reference or references Appendix 12 to permit variation
Where the technical guidance or your risk assessment shows that odours are an important issue, send us your odour management plan	Document reference or references n/a
If the technical guidance or your risk assessment shows that noise or vibration are important issues, send us your noise or vibration management plan (or both)	Document reference or references n/a

For guidance on risk assessments for your environmental permit see <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>

3c Types and amounts of raw materials

Fill in Table 5 for all schedule 1 activities. Fill in a separate table for each installation.

Table 5 – Types and amounts of raw materials

Name of the installation		A303 IBA Facility		
Capacity (See note 1 below)				
Schedule 1 activity	Description of raw material and composition	Maximum amount (tonnes) (See note 2 below)	Annual throughput (tonnes each year)	Description of the use of the raw material including any main hazards (include safety data sheets)
Recovery or a mix of recovery and				

Notes

- By 'capacity', we mean the total storage capacity (tonnes) or total treatment capacity (tonnes each day).
- By 'maximum amount', we mean the maximum amount of raw materials on the site at any one time.

Use a separate sheet if you have a long list of raw materials, and send it to us with your application form. Please also provide the reference of this extra sheet.

Document reference

Permit Variation Application: Table 4

3d Information for specific sectors

For some of the sectors, we need more information to be able to set appropriate conditions in the permit. This is as well as the information you may provide in sections 5, 6 and 7. For those activities listed below, you must answer the questions in the related document.

Table 6 – Questions for specific sectors

Sector	Appendix
Combustion	See the questions in appendix 1
Chemicals	See the questions in appendix 2
Incinerating waste	See the questions in appendix 3
Landfill and recovery of hazardous waste on land	See the questions in appendix 4

General information

4 Monitoring

4a Describe the measures you use for monitoring emissions by referring to each emission point in Table 2 above

You should also describe any environmental monitoring. Tell us:

- how often you use these measures
- the methods you use
- the procedures you follow to assess the measures

Document reference

Annually to ensure emission levels are 2-5mg/Nm³.

4b Point source emissions to air only

4b1 Has the sampling location been designed to meet BS EN 15259 clause 6.2 and 6.3?

No ☐

Yes ☒

4b2 Are the sample ports large enough for monitoring equipment and positioned in accordance with section 6 and appendix A of BS EN 15259?

No ☐

Yes ☒

4b3 Is access adjacent to the ports large enough to provide sufficient working area, support and clearance for a sample team to work safely with their equipment throughout the duration of the test?

No ☐

Yes ☒

4b4 Are the sample location(s) at least 5 HD from the stack exit

No ☐

Yes ☒

4b5 Are the sample location(s) at least 2 HD upstream from any bend or obstruction?

No ☐

Yes ☒

4b6 Are the sample location(s) at least 5 HD downstream from any bend or obstruction?

No ☐

Yes ☒

4b7 Does the sample plane have a constant cross sectional area?

No ☐

Yes ☒

4b8 If horizontal, is the duct square or rectangular (unless it is less than or equal to 0.35 m in diameter)

No ☒

Yes ☐

4b9 If you have answered 'No' to any of the questions 4b1 to 4b8 above, provide an assessment to how the standards in BS EN 15259 will be met.

Document reference of the assessment

5 Environmental impact assessment

5a Have your proposals been the subject of an environmental impact assessment under Council Directive 85/337/EEC of 27 June 1985 [Environmental Impact Assessment] (EIA)?

No ☒ Now go to question 6

Yes ☐ Please provide a copy of the environmental statement and, if the procedure has been completed:

- a copy of the planning permission
- the committee report and decision on the EIA

Document reference of the copy

6 Resource efficiency and climate change

If the site is a landfill or a recovery of hazardous waste on land activity, you only need to fill in this section if the application includes gas engines.

6a Describe the basic measures for improving how energy efficient your activities are

Document reference of the description

Refer to application report

6b Provide a breakdown of any changes to the energy your activities use up and create

Document reference of the description

Refer to application report

6c Have you entered into, or will you enter into, a climate change levy agreement?

No ☒ Describe the specific measures you use for improving your energy efficiency

Document reference of the description

Yes ☐ Please give the date you entered
(or the date you expect to enter)
into the agreement (DD/MM/YYYY)

Please also provide documents that prove you are taking part in the agreement.

Document reference of the proof

6d Explain and justify the raw and other materials, other substances and water that you will use

Document reference of the justification

Refer to application report

6e Describe how you avoid producing waste in line with Council Directive 2008/98/EC on waste

If you produce waste, describe how you recover it. If it is technically and financially impossible to recover the waste, describe how you dispose of it while avoiding or reducing any effect it has on the environment.

Document reference of the description

Refer to application report

7 Installations that include a combustion plant (excluding waste incinerators)

7a List all your combustion plant at the site and provide thermal input and operating hours for each

Document reference

7b Do any of your combustion plants have a net rated thermal input of 1 or more MW and is not an excluded MCP?

No ☐ Go to 7c

Yes ☐ Please fill in the table in appendix 1 question 13

7c Is the aggregated net thermal input of your combustion plant more than 20 MW?

No ☐

Yes ☐ Please go to appendix 1 question 11

8 How to contact us

If you need help filling in this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: <https://www.gov.uk/government/organisations/environment-agency>

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form? _____

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

Yes please ☐

No thank you ☐



For Environment Agency use only

Date received (DD/MM/YYYY)

Payment received?

No ☐

Yes ☐

Our reference number

Amount received

£ _____

Plain English Campaign's Crystal Mark does not apply to appendices 1 to 4.

Appendix 1 – Specific questions for the combustion sector

1 Identify the type of fuel burned in your combustion units (including when your units are started up, shut down and run as normal). If your units are dual fuelled (that is, use two types of fuel), list both the fuels you use

Fill in a separate table for each installation.

Installation reference			
Type of fuel	When run as normal	When started up	When shut down
Coal	☐	☐	☐
Gas oil	☐	☐	☐
Heavy fuel oil	☐	☐	☐
Natural gas	☐	☐	☐
WID waste	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Landfill gas	☐	☐	☐
Other	☐	☐	☐

Notes

1. Not covered by Industrial Emissions Directive 2010/75/EU.
2. 'Biomass' is referred to The Renewables Obligation Order 2002 (<https://www.legislation.gov.uk/uksi/2002/914/contents/made>)

Give extra information if it helps to explain the fuel you use.

Document reference

Appendix 1 – Specific questions for the combustion sector, continued

2 Give the composition range of any fuels you are currently allowed to burn in your combustion plant

Fill in a separate table for each installation, continuing on a separate sheet if necessary

Fuel use and analysis					
Installation reference					
Parameter	Unit	Fuel 1	Fuel 2	Fuel 3	Fuel 4
Maximum percentage of gross thermal input	%				
Moisture	%				
Ash	% wt/wt dry				
Sulphur	% wt/wt dry				
Chlorine	% wt/wt dry				
Arsenic	% wt/wt dry				
Cadmium	% wt/wt dry				
Carbon	% wt/wt dry				
Chromium	% wt/wt dry				
Copper	% wt/wt dry				
Hydrogen	% wt/wt dry				
Lead	% wt/wt dry				
Mercury	% wt/wt dry				
Nickel	% wt/wt dry				
Nitrogen	% wt/wt dry				
Oxygen	% wt/wt dry				
Vanadium	mg/kg dry				
Zinc	mg/kg dry				
Net calorific value	MJ/kg				

Appendix 1 – Specific questions for the combustion sector, continued

3 If NO_x factors are necessary for reporting purposes (that is, if you do not need to monitor emissions), please provide the factors associated with burning the relevant fuels

Fill in a separate table for each installation.

Installation reference	
Fuel	NO _x factor (kg t ⁻¹)
Fuel 1	
Fuel 2	
Fuel 3	
Fuel 4	

Note: kg t⁻¹ means kilograms of nitrogen oxides released for each tonne of fuel burned.

4 Will your combustion plant be subject to Chapter III of the Industrial Emissions Directive 2010/75/EU?

No ☐ Now fill in application form part F

Yes ☐

5 What is your plant?

an existing one ☐ A plant licensed before 1 July 1987

a new one ☐ A plant licensed on or after 1 July 1987 but before 27 November 2002, or a plant for which an application was made before 27 November 2002 and which was put into operation before 27 November 2003

a new-new one ☐ A plant for which an application was made on or after 27 November 2002

6 If you run more than one type of plant or a number of the same type of plant on your installation, please list them in the table below

Fill in a separate table for each installation.

Installation reference	
Type of plant	Number within installation
Existing	
New	
New-new	
Gas turbine (group A)	
Gas turbine (group B)	

Appendix 1 – Specific questions for the combustion sector, continued**7 If you run an existing plant, have you submitted a declaration for the ‘limited life derogation’ set out in Article 33 of Chapter III of the Industrial Emissions Directive?**No ☐ Now go to question 9Yes ☐**8 Have you subsequently withdrawn your declaration?**No ☐Yes ☐**9 List the existing large combustion plants (LCPs) which have annual mass allowances under the National Emission Reduction Plan (NERP), and those with emission limit values (ELVs) under the LCPD**

Installation reference	
LCPs under NERP	LCPs with ELVs

10 Do you meet the monitoring requirements of Chapter III of the Industrial Emissions Directive?No ☐Yes ☐ Document reference**11 Have you carried out a cost–benefit assessment (CBA) of opportunities for cogeneration (combined heat and power) or district heating under Article 14 of the Energy Efficiency Directive?**No ☐ Please provide supporting evidence of why a CBA is not required
(for example, an agreement from us)

Document reference of this evidence

Yes ☐ Please submit a copy of your CBA

Document reference of the CBA

Appendix 1 – Specific questions for the combustion sector, continued**12 Does your installation need to be combined heat and power-ready (CHP-ready)?**

No ☐ Please provide supporting evidence of why a CHP-ready assessment is not required (for example, an agreement from us)

Document reference of this evidence

Yes ☐ Please provide a copy of your CHP-ready assessment

Document reference of the CHP-ready assessment

13 Information to be provided by the operator to the competent authority for each Medium Combustion Plant as identified in Annex I of Medium Combustion Plant Directive (EU/2015/2193)

MCP specific identifier*	
12-digit grid reference or latitude/longitude	
Rated thermal input (MW) of the MCP	
Type of MCP (diesel engine, gas turbine, other engine or other MCP)	
Type of fuels used: gas oil (diesel), natural gas, gaseous fuels other than natural gas, landfill gas	
Date when the new MCP was first put into operation	
Sector of activity of the MCP or the facility in which it is applied (NACE code)	
Expected number of annual operating hours of the MCP and average load in use	

Where the option of exemption under Article 6(8) is used the operator (as identified on Form A) should sign a declaration here that the MCP will not be operated more than the number of hours referred to in this paragraph	
--	--

* identifier – the MCP must be traceable via a serial number or other unique identifier, name plate, manufacturer and or model

NACE code means Nomenclature of Economic Activities and is the European statistical classification of economic activities (<http://www.export.gov.il/files/EEN/ListNACEcodes.pdf>).

To find out the 12-digit grid reference you can search on the UK Grid Reference Finder website at <https://gridreferencefinder.com/>

Appendix 2 – Specific questions for the chemical sector

1 Please provide a technical description of your activities

- The description should be enough to allow us to understand:
- the process
- the main plant and equipment used for each process
- all reactions, including significant side reactions (that is, the chemistry of the process)
- the material mass flows (including by products and side streams) and the temperatures and pressures in major vessels
- the all emission control systems (both hardware and management systems), for situations which could involve releasing a significant amount of emissions – particularly the main reactions and how they are controlled
- a comparison of the indicative BATs and benchmark emission levels standards: technical guidance notes (TGNs) (see <https://www.gov.uk/government/collections/technical-guidance-for-regulated-industry-sectors-environmental-permitting>); additional guidance ‘The production of large volume organic chemicals’ (EPR 4.01); ‘Speciality organic chemicals sector’ (EPR 4.02); ‘Inorganic chemicals sector’ (EPR 4.03); and best available techniques reference documents (BREFs) for the chemical sector

Document reference

2 If you are applying for a multi-purpose plant, do you have a multi-product protocol in place to control the changes?

No ☐

Yes ☐ Provide a copy of your protocol to accompany this application

Document reference

3 Does Chapter V of the Industrial Emissions Directive (IED) apply to your activities?

No ☐

Yes ☐ Fill in the following

3a List the activities which are controlled under the IED

Installation reference	
Activities	

3b Describe how the list of activities in question 3a above meets the requirements of the IED

Document reference

Appendix 3 – Specific questions for the waste incineration sector

If you are proposing to accept clinical waste, please complete your answer to question 3a ‘Technical standards’ with reference to relevant parts of our healthcare waste appropriate measures guidance (see <https://www.gov.uk/guidance/healthcare-waste-appropriate-measures-for-permitted-facilities>)

1a Do you run incineration plants as defined by Chapter IV of the Industrial Emissions Directive (IED)?

No ☐ You do not need to answer any other questions in this appendix

Yes ☐ IED applies

1b Are you subject to IED as

An incinerator? ☐

A co-incinerator? ☐

2 Do any of the installations contain more than one incineration line?

No ☐ Now go to question 4

Yes ☐

3 How many incineration lines are there within each installation?

Fill in a separate table for each installation.

Installation reference		
Number of incineration lines within the installation		
Reference identifiers for each line		

You must provide the information we ask for in questions 4, 5 and 6 below in separate documents. The information must at least include all the details set out in section 2 (‘Key Issues’) of S5.01 ‘Incineration of waste: additional guidance’ (under the sub heading ‘European legislation and your application for an EP Permit’). See <https://www.gov.uk/government/collections/technical-guidance-for-regulated-industry-sectors-environmental-permitting>.

You must answer questions 7 to 13 on the form below.

4 Describe how the plant is designed, equipped and will be run to make sure it meets the requirements of IED, taking into account the categories of waste which will be incinerated

Document reference

5 Describe how the heat created during the incineration and co-incineration process is recovered as far as possible (for example, through combined heat and power, creating process steam or district heating)

Document reference

Appendix 3 – Specific questions for the waste incineration sector, continued

6 Describe how you will limit the amount and harmful effects of residues and describe how they will be recycled where this is appropriate

Document reference _____

For each line identified in question 3, answer questions 7 to 13 below

Question 3 identifier, if necessary _____

7 Do you want to take advantage of the Article 45 (1)(f) allowance (see below) if the particulates, CO or TOC continuous emission monitors (CEM) fail?

No ☐

Yes ☐ This allows ‘abnormal operation’ of the incineration plant under certain circumstances when the CEM for releases to air have failed. Annex VI, Part 3(2) sets maximum half hourly average release levels for particulates (150 mg/m³), CO (normal ELV) and TOC (normal ELV) during abnormal operation.

Describe the other system you use to show you keep to the requirements of Article 13(4) (for example, using another CEM, providing a portable CEM to insert if the main CEM fails, and so on).

8 Do you want to replace continuous HF emission monitoring with periodic hydrogen fluoride (HF) emission monitoring by relying on continuous hydrogen chloride (HCl) monitoring as allowed by IED Annex VI, Part 6 (2.3)?

Under this you do not have to continuously monitor emissions for hydrogen fluoride if you control hydrogen chloride and keep it to a level below the HCl ELVs.

No ☐

Yes ☐ Please give your reasons for doing this

Appendix 3 – Specific questions for the waste incineration sector, continued

9 Do you want to replace continuous water vapour monitoring with pre-analysis drying of exhaust gas samples, as allowed by IED Annex VI, Part 6 (2.4)?

Under this you do not have to continuously monitor the amount of water vapour in the air released if the sampled exhaust gas is dried before the emissions are analysed.

No ☐

Yes ☐ Please give your reasons for doing this

10 Do you want to replace continuous hydrogen chloride (HCl) emission monitoring with periodic HCl emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for hydrogen chloride if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give your reasons for doing this

Appendix 3 – Specific questions for the waste incineration sector, continued

11 Do you want to replace continuous HF emission monitoring with periodic HF emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for hydrogen fluoride if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give your reasons for doing this

12 Do you want to replace continuous SO₂ emission monitoring with periodic sulphur dioxide (SO₂) emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for sulphur dioxide if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give your reasons for doing this

Appendix 3 – Specific questions for the waste incineration sector, continued

13 If your plant uses fluidised bed technology, do you want to apply for a derogation of the CO WID ELV to a maximum of 100 mg/m³ as an hourly average, as allowed by IED Annex VI, Part 3?

No ☐

Does not apply ☐

Yes ☐ Please give your reasons for doing this

14 Have you carried out a cost–benefit assessment (CBA) of opportunities for cogeneration (combined heat and power) or district heating under Article 14 of the Energy Efficiency Directive?

No ☐ Please provide supporting evidence of why a CBA is not required
(for example, an agreement from us)

Document reference of this evidence

Yes ☐ Please submit a copy of your CBA

Document reference of the CBA

15 Does your installation need to be combined heat and power-ready (CHP-ready)?

No ☐ Please provide supporting evidence of why a CHP-ready assessment is not required
(for example, an agreement from us)

Document reference of this evidence

Yes ☐ Please provide a copy of your CHP-ready assessment

Document reference of the CHP-ready assessment

Appendix 4 – Specific questions for the landfill sector and recovery of hazardous waste on land activities

- 1. For the landfill sector, provide your Environmental Setting and Installation Design (ESID) report and any other risk assessments to control emissions.**

For recovery of hazardous waste on land activities, provide your Environmental Setting and Site Design (ESSD) report and any other risk assessments to control emissions

Document reference

- 2. For recovery of hazardous waste on land activities, provide your Waste Acceptance Procedures (including Waste Acceptance Criteria)**

Document reference

Refer to our guidance at

<https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-acceptance-procedures-for-deposit-for-recovery>

- 3. Provide your hydrogeological risk assessment (HRA) for the site**

Document reference

- 4. Provide your outline engineering plan for the site**

Document reference

- 5. Provide your stability risk assessment (SRA) for the site**

Document reference

- 6. Provide your landfill gas risk assessment (LFGRA) for the site**

Document reference

We have developed guidance on these assessments and their reports which can be found at

<https://www.gov.uk/government/collections/environmental-permitting-landfill-sector-technical-guidance>

- 7. For recovery of hazardous waste on land activities, have you completed a monitoring plan for the site?**

No ☐ Please refer to the section of your ESSD that explains why this is unnecessary for your site

Document reference of this evidence

Yes ☐ Document reference

Appendix 4 – Specific questions for the landfill sector and recovery of hazardous waste on land activities, continued

8. Have you completed a proposed plan for closing the site and your procedures for looking after the site once it has closed?

No ☐ If you have answered 'no' for recovery of hazardous waste on land activities, refer to the section of your ESSD that explains why this is unnecessary for your site

Document reference of this evidence

Yes ☐ For landfill you must provide a closure and aftercare plan

Document reference

Application & Guidance for an environmental permit

Part C2 – General – varying a bespoke permit



Environment
Agency

Use this form if you are applying to make a non-administrative variation (change) to the conditions or any other part of your permit.

In addition to this form, you will also need to complete:

- **Part A: about you** <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-a-about-you>
- **Part F1: charges and declarations** <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-f1-opra-charges-declarations>

You will also need to complete one or more additional part C forms, depending on your proposed change:

- **Part C3: vary a bespoke installation permit** <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-c3-varying-a-bespoke-installation-permit>
- **Part C4: varying a bespoke waste operation permit** <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-c4-varying-a-bespoke-waste-operation-permit>
- **Part C5: vary a permit to a mining waste permit, or vary a bespoke mining waste permit** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/582774/LIT_6785.pdf
- **Part C6: vary a water discharge activity, groundwater activity, or point source emission to water from an installation** https://assets.publishing.service.gov.uk/media/66743838d427ab249955cef2/Part_C6_vary_a_bespoke_water_discharge_activity_and_groundwater_point_source_environmental_permit.pdf
- **Part C7: vary a bespoke groundwater permit to discharge used sheep dip, waste pesticide washing or other waste substances** <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-c7-varying-a-bespoke-groundwater-permit>

If you are not changing to or adding a different facility type, the additional Part C form will depend on your permitted facility type. For example, if you are proposing to change the conditions of an installation permit, the additional form you need to complete is Part C3.

If you are changing to or adding a different facility type, the additional form you complete will depend on the facility you are changing to or adding.

Some examples are given below:

- Waste operation changing to an installation – if your changes mean that your existing waste operation becomes an installation you will need to fill in **Part C3: vary a bespoke installation permit** <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-c3-varying-a-bespoke-installation-permit>
- Installation changing to a waste operation – if your changes mean that your existing installation becomes a waste operation you will need to fill in **Part C4: varying a bespoke waste operation permit** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/928388/Application-for-environmental-permit-Part-C4-varying-a-bespoke-waste-operation-permit.pdf

- Change to add a waste operation to an installation – if you are applying to add a waste operation to your existing installation you will need to complete application form **Part C4: varying a bespoke waste operation permit** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/928388/Application-for-environmental-permit-Part-C4-varying-a-bespoke-waste-operation-permit.pdf
- Change to add an installation to a waste operation – if you are applying to add an installation to your existing waste operation you will need to complete application for **Part C3: vary a bespoke installation permit** <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-c3-varying-a-bespoke-installation-permit>
- Change to add an inert mining waste operation – if you have an existing permit for a water discharge activity that is integral to the mining waste operation and you wish to vary this permit by adding the requirements for an inert mining waste operation, complete forms Part A, C1 and F1. Please note that we will issue a bespoke permit, but it will resemble the standard rules for mining waste as closely as possible but will not technically be standard rules permit.
- Changing from a standard rule to a bespoke permit – the additional Part C form will depend on the bespoke facility type you are changing to. For example, if you are changing to a bespoke waste operation permit, you will need to complete the **Part C4 form** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/928388/Application-for-environmental-permit-Part-C4-varying-a-bespoke-waste-operation-permit.pdf
- Change to convert to or add a standard facility – to convert your existing permit to a standard permit or add a standard facility, do not complete this part of the form, but see: **Part C1: vary a standard facilities permit** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/928394/Application-Part-C1-varying-a-permit-to-change-to-or-add-a-standard-facility.pdf

To make an administrative change to your permit, do not complete this form. Instead see: **Part C0.5 administrative change to a standard or bespoke permit** <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-c05-administrative-variation-of-a-standard-or-bespoke-permit>

To vary (change) your intensive farming permit, do not complete this form. Instead use: <https://www.gov.uk/government/publications/application-to-vary-an-environmental-permit-part-c3.5>

To vary (change) your medium combustion plant/specified generator permit, do not complete this form. Instead see: <https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-c2.5-vary-to-add-a-new-mcpsg-or-change-an-existing-mcp-or-sg-permit>

You only need to give us details in this application for the parts of the permit that will be affected (for example, if you are adding a new facility or changing an existing one).

You do not need to resend any information from your original permit application if it is not affected by your proposed changes.

Please check that this is the latest version of **Part C2 form**: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/928047/Application-for-a-permit-Part-C2-general-varying-a-bespoke-permit.pdf

This form can be:

- Saved onto a computer then filled in. We recommend you use an Adobe Acrobat product to complete the form. You may not be able to complete the form using different software, such as a PDF reader built into your internet browser.
- Printed off and filled in by hand. Please write clearly in the answer spaces.

Contents

- 1 About the permit**
- 2 About your proposed changes**
- 3 Your ability as an operator**
- 4 Environmental risk assessment**
- 5 Site condition report**
- 6 Other supporting information**
- 7 Consultation**
- 8 How to contact us**

Appendix 1 – Low impact installation checklist

Appendix 2 – Date of birth information for Relevant offences and/or Technical competence questions only

Appendix 3 – Example site plan

1 About the permit

1a Have you spoken to the Environment Agency already about this application?

☐ No

☒ Yes Provide your pre-application reference number. For further information on pre-application advice see **Get advice before you apply for an environmental permit** <https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit>

Pre-application reference number

EPR/PP3528LF/P001

Reference for the extra documents

1b If we have agreed you can send application information in stages

Provide your proposed timetable giving the dates of when you will submit each piece of information. For further information please see the guidance on **Send environmental permit application information in stages** <https://www.gov.uk/guidance/send-environmental-permit-application-information-in-stages>

Timetable document reference

1c Permit number

What is the permit number that this application relates to?

EPR/FB3805GN

This is the permit number starting with 'EPR' and can be found on your subsistence invoice, for example 'EPR/AB1234CD'

1d Site details (excludes mobile plant)

What is the site name, address and postcode?

Site name

A303 IBA Facility

Address

A303 Enviropark
Drayton Road
Barton Stacey
Andover
Hampshire

Postcode

SO21 3QS

1 About the permit, continued

National grid reference for the centre of the site

SU 44130 42939

Provide the 12-digit Ordnance Survey national grid reference for the centre of the site: for example, ST12345 67890.

There are several online resources available that can help find the grid reference. For example go to the Ordnance Survey website at <https://explore.osmaps.com/?lat=51.776100&lon=-1.894300&zoom=7.0000&style=Standard&type=2d>, locate and right click on the centre of the site.

2 About your proposed changes

2a Type of variation

What type of variation are you applying for? For examples of the different variation types, see our 'Charging Scheme Guidance' <https://www.gov.uk/government/publications/environmental-permitting-charges-guidance/environmental-permitting-charges-guidance#varying-a-permit-charge>.

- ☐ Minor variation
- ☐ Normal variation
- ☒ Substantial variation

2b Changes or additions to existing activities

2b.1 Provide a summary of the changes or additions you want to make to each activity, include details of any changes to discharge points or site boundaries.

2b.2 Provide further details of your proposed changes or additions in a separate document

The proposals include the deconstruction and removal of the existing incinerator bottom ash (IBA) processing plant and the construction of a new, replacement plant (replant), within the current permit boundary. The replant is an upgrade to the existing IBA processing plant and will process the imported IBA to produce IBA Aggregate (IBAA) and screened metals.

In addition, a new enhanced IBA recovery facility is to be installed at the Site, which will be located within a fully enclosed building, outside of the current permit boundary. The enhanced IBA recovery facility will further refine the non-ferrous fraction produced from the replant; as well as imported non-ferrous metals from the other Fortis sites. The plant shall be comprised of a material receipt, storage area and dry and wet separation plants. Recovered IBA residue will be returned to the adjacent

Document reference of the detailed changes or additions

Permit Variation Application

2 About your proposed changes, continued

2b3 Do you want to remove an activity from your permit?

☒ No

☐ Yes Enter the activity that you are applying to remove in the text box below.

2c Consolidate (combine) two or more permits into one

If you have more than one permit on the same site you can apply to combine them into a single permit.

We will combine the existing permits into a single replacement permit. Where we agree to combine the permits, old style permit conditions will be replaced with modern ones that deliver an equivalent standard. An existing condition may be used if it does not have a modern equivalent.

We may require additional information from you, for example, about your management system.

It is advisable to obtain pre-application advice before you apply to combine your permits. See <https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit>

Note: You will need to pay a variation charge for each permit being consolidated. See the 'Consolidate permits through variations' section of our Charging Scheme Guidance <https://www.gov.uk/government/publications/environmental-permitting-charges-guidance/environmental-permitting-charges-guidance#consolidate-2-or-more-permits-into-1>.

Do you want to combine two or more permits into one?

☐ Yes – list all the permit numbers you want to combine in Table 1 below.

Table 1 – Permit numbers

☒ No – **go to question 2d**

2 About your proposed changes, continued

2d Consolidate (update) a single permit

We will usually issue a new, updated permit whenever variations are made. If your permit has old style conditions we will usually replace them with modern ones that deliver an equivalent standard. An existing condition may be used if it does not have a modern equivalent.

We do this updating as a regulator initiated variation, so it is not something you need to apply for. If you do not want us to do this, tick the box in 2d.1 below and tell us why.

2d.1

☐ I do not want my permit updated with modern conditions.

Explain your reasons below:

Sometimes we will be unable to update old style conditions as a regulator initiated variation. For example, where the work is disproportionate to the type of variation applied for.

You can still apply to consolidate and update your old-style conditions, but this may incur an additional charge. See the 'Consolidate permits through variations' section of our Charging Scheme Guidance <https://www.gov.uk/government/publications/environmental-permitting-charges-guidance/environmental-permitting-charges-guidance#consolidate-a-single-permit>. You will need to include this as part of your overall application charge.

It is advisable to obtain pre-application advice before you apply to update and modernise your permit. See <https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit>

2d.2

☐ I am applying to update and modernise my permit.

2e Low impact installations (installations only)

This applies to low-risk installation activities only. If this is not applicable, answer 'No' go straight to **section 3** on the application form.

Read the low impact installation guidance in **appendix 1** to check whether your installations fit the criteria. You must tell us how you meet the criteria in a separate document, giving the document reference in this section.

You must complete the low installation checklist in **appendix 1**. Tick the box to confirm you have filled it in.

2 About your proposed changes, continued

2e.1 Will the changes mean the facility qualifies as a low impact installation?

- ☒ No Now go to section 3
- ☐ Yes If yes, tell us how you meet the low impact installation criteria (see the guidance notes in **Appendix 1**)

Document reference

- ☐ Tick the box to confirm you have filled in the low impact installation checklist in Appendix 1 for each regulated facility

3 Your ability as an operator

If you are applying to add waste installations or waste operations (relevant waste operations) to a permit that has not previously had them, you need to fill in all of section 3. Otherwise, complete the relevant questions as indicated by the accompanying guidance.

Relevant waste operations are one or both of the following:

- A waste operation (not carried on at an installation or by means of a Part B mobile plant).
- A specified waste management activity (certain installations carrying out waste management activities).

For further details refer to <https://www.legislation.gov.uk/ukxi/2018/1227/regulation/4/made>

When deciding such applications we consider whether you will be competent operator. We look at any unspent relevant convictions; your technical ability; financial competence; and check that you have a management system.

3a Convictions for any relevant offences

This question applies to relevant waste operations only. Complete the question if you are applying to add a relevant waste operation to a permit that has not had one before.

It does not apply to applications from public bodies or government departments.

Relevant convictions are explained at: <https://www.gov.uk/government/publications/relevant-conviction-guidance-for-permit-applications-for-waste-activities-and-installations-only>

Do you, or any other relevant person, have any unspent convictions for any relevant offence?

- ☒ No Now go to **question 3b**
- ☐ Yes Please give details below

3 Your ability as an operator, continued

Name of the relevant person

Title (Mr, Mrs, Miss and so on)

First name

Last name

Position held at the time of the offence

Name of the court where the case was dealt with

Date of the conviction (DD/MM/YYYY)

Offence and penalty set

Date any appeal against the conviction will be heard (DD/MM/YYYY)

If necessary, use a separate sheet to give us details of other relevant offences and tell us below the reference number you have given the extra sheet.

Document reference

☐ Tick this box to confirm you have provided dates of birth for each relevant person in **Appendix 2**.

Relevant person

For individuals or groups of individuals

A 'relevant person' is:

- the individual where the permit holder is a sole individual
- all individuals where the permit holder is a group of individuals, (such as individuals in a general or limited partnership)

For registered companies

A 'relevant person' is the company itself and any:

- director
- company secretary
- manager
- similar corporate officer

3 Your ability as an operator, continued

For limited liability partnerships

A 'relevant person' is:

- the partnership itself
- all partners

For other organisations or bodies

A relevant person is any person who is part of the controlling or guiding mind of the organisation or body. This could be, for example any:

- trustee
- chairperson
- treasurer
- secretary
- person with a similar position

Relevant unspent convictions must be declared whether the relevant person has been:

- convicted of a relevant offence themselves
- held one of the positions above at a time when the organisation or body was convicted of a relevant offence

3b Technical ability

Section 3b applies to relevant waste operations only.

Complete the questions if:

- you are adding a relevant waste operation to a permit that has not had one before; or
- your proposed variation will change your current technical competence requirements

'Relevant waste operations' are one or both of the following:

- a waste operation (not carried on at an installation or by means of a Part B mobile plant).
- a specified waste management activity (certain installations carrying out waste management activities). For further details about specified waste management activities refer to 2(4) and 2(5) of <https://www.legislation.gov.uk/uksi/2018/1227/regulation/4/made>

3b.1 Which technical competence scheme are you using?

We need to be satisfied that you will have sufficient technical ability to operate your facility.

To demonstrate your technical ability, you must comply with one of the government approved technical competence schemes. The two schemes currently approved are:

- Chartered Institute of Wastes Management/Waste Management Industry Training and Advisory Board (CIWM/WAMITAB) scheme: <https://ciwmquals.co.uk/competence/>.
- Energy and Utility Skills/Environmental Services Association/ (EU skills/ESA) scheme: <https://www.euskills.co.uk/about/our-industries/waste-management/competence-management-system/>.

3 Your ability as an operator, continued

Tick the scheme(s) you are using to demonstrate your technical competence.

☒ CIWM/WAMITAB. Go to question 3b.2

☐ EU skills/ESA. Go to question 3b.3

3b.2 CIWM/WAMITAB scheme

The information you provide in this section must be for the person(s) providing technical competence once the new or changed waste operation starts.

Note: grace periods do not apply to variation applications.

Provide the following information for each technically competent manager (TCM).

Use a separate sheet to provide the information for each TCM where more than one is being provided.

Document reference for continuation sheet, (if applicable):

a. Details of the technically competent manager

Title (Mr, Mrs, Miss and so on)

Mr _____

First name

Wayne _____

Last name

Read _____

Phone

07917 891304 _____

Email

Wayne.Read@raymondbrown.co.uk _____

☒ Tick this box to confirm you have provided the date of birth for the TCM in **Appendix 2**.

Complete table 2 for any other sites where the manager provides technical competence. This includes permits held by other operators and any other sites where they are intending to provide technically competent management.

3 Your ability as an operator, continued

Continue on a separate sheet as required.

Table 2		
Permit number	Site address	Postcode

Document reference of the extra sheet (if applicable)

For information on how much time the TCM must be on site, see: <https://www.gov.uk/guidance/legal-operator-and-competence-requirements-environmental-permits#how-much-time-your-technically-competent-manager-must-be-on-site>.

b. Provide evidence of relevant technical competence

Tick the document(s) you are submitting to show evidence of technical competence. The original and continuing competence must be relevant to the activity you are applying for.

Primary competence qualification

- ☒ a copy of the primary competence qualification certificate(s)
- ☒ copy of current continuing competence certificate(s). This is required when the original qualification is over 2 years old.

Deemed competence

- ☐ evidence of deemed competence and current continuing competence certificate(s)

Environment Agency assessed competence

- ☐ evidence of passing an Environment Agency assessment and current continuing competence certificate(s)

Transitional provisions (for previously exempt activities)

- ☐ generic knowledge test certificate and current continuing competence certificate(s).

The generic knowledge test option only applies to managers nominated under the 2010 exemption transitional arrangements.

3 Your ability as an operator, continued

3b.3 EU skills/ESA scheme

Provide evidence of technical competence.

- ☐ Tick this box to confirm you have included a copy of your Competence Management System (CMS) certificate and any appendices

Now go to question 3c

3c Finances

Section 3c applies to installations, waste operations and mining waste operations only.

Complete question 3c.1 if you are applying to add a relevant waste operation to a permit that has not had one before.

Otherwise start at question 3c.2 for variations to all landfills, Category A and hazardous waste mining waste facilities.

If you want to change your permit to extend the area of a landfill or mining waste facility as described above, you will need to discuss when is necessary to review the expenditure plan/cost profile for variation.

3c.1 Financial competence – adding a relevant waste operation to a permit that has not had one before.

Do you or any relevant person or a company in which you (or they) (or any relevant person) were a relevant person, have current or past bankruptcy or insolvency proceedings against you?

- ☒ No
- ☐ Yes Please give details below, including the required set-up costs (including infrastructure), maintenance and clean-up costs for the proposed facility against which a credit check may be assessed.

We may contact a credit reference agency for a report about your business's finances.

See **Environmental permits privacy notice** – <https://www.gov.uk/guidance/environmental-permits-privacy-notice> for how we use your personal information to support environmental permitting.

3 Your ability as an operator, continued

Financial provision – variations to a landfill, Category A or hazardous waste mining waste facilities.

When you apply to change your permit, you must also review your financial provision. This is to make sure it covers any changes in liability.

For further guidance for landfills see: <https://www.gov.uk/guidance/landfill-operators-environmental-permits/calculate-your-financial-provision#review-and-change-your-financial-provision>

For further guidance for mining waste facilities see: the 'Financial guarantees' section of 'Environmental Permitting Guidance – The Mining Waste Directive' <https://www.gov.uk/government/publications/environmental-permitting-guidance-the-mining-waste-directive>

3c.2 Do you need to change the amount of financial provision?

You need to provide an expenditure plan. Tell us the document reference here and send the documents with the application form when you've completed it.

☐ Yes Go to question 3c.3

☐ No Provide an explanation in the box below and then go to **question 3d**

3c.3 How do you plan to make financial provision?

You need to satisfy us that you are financially capable of meeting the obligations of the permit, including during aftercare.

Tick the type of financial provision you intend to use:

☐ Renewable bonds

☐ Cash deposits with the Environment Agency

3c.4 Submit your revised expenditure plan

For landfills, include any updated monitoring point plan or monitoring and extraction point plan. For guidance see: (<https://www.gov.uk/guidance/landfill-operators-environmental-permits/calculate-your-financial-provision>).

Document reference for revised expenditure plan

3 Your ability as an operator, continued

3d Management systems

You must complete section 3d for all variation applications

You must have an effective, written management system in place that identifies and reduces the risk of pollution. You can show this by using a certified scheme or your own system. For guidance on developing a management system see: <https://www.gov.uk/guidance/develop-a-management-system-environmental-permits>

If you operate more than one site, you need to be able to explain what happens at each site and which parts of the overall management system apply. For example, at some sites you may need to show you are carrying out additional measures to prevent pollution because they are nearer to sensitive locations than others.

For waste and installation activities only: your management system must also explain your resilience to climate change. Explained at: <https://www.gov.uk/guidance/climate-change-risk-assessment-and-adaptation-planning-in-your-management-system>.

For small sewage treatment activities only: your management system must ensure that your sewage treatment system is maintained and run effectively. <https://www.gov.uk/guidance/develop-a-management-system-environmental-permits>

You can find guidance on management systems here: <https://www.gov.uk/guidance/develop-a-management-system-environmental-permits>

- ☒ Tick this box to confirm that you have read the guidance and that your management system will meet our requirements

What management system are you providing for your regulated facility?

- ☒ ISO 14001
- ☐ BS 8555 (Phases 1–5)
- ☐ BS EN ISO 14005:2019
- ☐ Green dragon
- ☐ EMAS Global
- ☐ Other
- ☐ Own management system

Please send us a summary of your updated management system and a copy of your accreditation (if applicable) with your application.

Document reference/s

Permit Variation Application: Appendix 9

4 Environmental risk assessment

Your environmental risk assessment will need updating to consider any additional or other changes in risk. The risk assessment must show the measures in place to reduce and control risks.

The risk assessment must follow the methodology set out in 'Risk assessments for your environmental permit' (see <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>), or an equivalent method.

Include modelling reports and files where you have carried out detailed modelling.

If a habitat site is within screening distance, then an additional fee will be required. See <https://www.gov.uk/government/publications/environmental-permits-and-abstraction-licences-tables-of-charges>

You must provide an updated environmental risk assessment. Your risk assessment should clearly identify any additional or other changes in risk. This does not apply when we can do the risk assessment for you. We can do the risk assessment for you where you are:

- a farmer discharging certain substances to ground
- discharging domestic treated sewage, (depending on volume and site sensitivities)

See 'Risk assessments for your environmental permit' at <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit#when-the-environment-agency-can-do-your-risk-assessment> for further details on when we can do your risk assessment for you.

Document reference(s) for the updated risk assessment, including modelling reports and files where applicable

Permit Variation Application: Appendix 14

5 Site condition report

This section is applicable to Part A installations, waste and mining waste operations only. Do not complete for mining waste facilities.

This section does not apply to areas of land where waste is permanently deposited, for example areas of landfill, mining waste operations and deposit for recovery. It does apply to any parts of the site where waste will not be permanently deposited, for example a weighbridge area that will not be backfilled with waste.

You can contact us for pre-application advice on site condition reports, see: <https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit>

If you want to make any of the changes listed in question 5a, you will need to submit an updated site condition report (SCR). This must include an updated site plan. For details of what to include on the site plan, see the H5 template linked below.

If you do not currently have an SCR, you should use the **H5 Site Condition Report word template** <https://www.gov.uk/government/publications/environmental-permitting-h5-site-condition-report> to prepare one.

You should keep your SCR up to date throughout the life of your permit. It will help you show how you have protected land and groundwater when you come to surrender your permit.

For SCR guidance and a template see:

<https://www.gov.uk/government/publications/environmental-permitting-h5-site-condition-report>.

5 Site condition report, continued

5a Are you proposing to make any of the following changes:

- extend your site boundary
- add an installation
- use, produce or release any new hazardous substances
- relocate hazardous substances to a new area within your site?

☐ No **Go to section 6**

☒ Yes Provide a site condition report, or an updated site condition report together with a summary of the changes.

Document reference(s) of your site condition report

Permit Variation Application: Appendix 3

Document reference(s) of your change summary document

Permit Variation Application

For installations, go to question 5b

For waste and mining waste operations, go to **section 6**.

5b Stage 1 to 3 assessment for hazardous substances (installations only)

Question 5b only applies to installations.

If you want to make any of the changes listed in question 5b, you will need to update your stage 1 to 3 assessment. If you do not already have a stage 1 to 3 assessment, you will need to carry one out.

For guidance on producing a stage 1 to 3 assessment, see 'EC Commission Guidance concerning baseline reporting (2014/C 136/03)' ([https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0506\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0506(01)&from=EN))

We have also produced a stage 1 to 3 assessment guidance document with worked examples. To request a copy, contact our pre-application service and ask for 'EPR advice note: Stage 1 to 3 assessment'. See: <https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit>

Are you proposing to make any of the following changes:

- use, produce or release any new hazardous substances
- relocate any hazardous substances you currently use, produce or release to a new area within your site boundary?

☐ No **Go to section 6**

☒ Yes Tick to confirm you have included a stage 1 to 3 assessment as part of your updated site condition report

Go to question 5c

5 Site condition report, continued

5c Baseline reference data (installations only)

Section 5c only applies to installations.

If your stage 1 to 3 assessment identifies a risk to soil and groundwater from relevant hazardous substances, you must provide baseline reference data for those substances. You may be unable to provide this information as part of your application. In this situation, it is likely that we will include an improvement condition in your permit. This will require you to submit baseline reference data within a given timeframe.

You will also be required to do periodic monitoring of soil and groundwater if your stage 1 to 3 assessment identified there is a risk to soil and groundwater from relevant hazardous substances.

It is recommended that you plan for this and include details of your proposed monitoring plan in your updated site condition report. The monitoring period in your permit will depend on the severity of the risk.

If your stage 1 to 3 assessment identifies a risk to soil and groundwater from any other potentially polluting substances, we recommend you establish baseline reference data.

5c.1 Has your stage 1 to 3 assessment identified a risk to soil and groundwater from relevant hazardous substances?

☒ No

☐ Yes Go to question 5c.2

5c.2 Have you have provided baseline reference data in your site condition report?

☒ No

☐ Yes

5c.3 Has your stage 1 to 3 assessment identified a risk to soil and groundwater from any other potentially polluting substances?

☒ No Go to section 6

☐ Yes Go to question 5c.4

5c.4 Have you have provided baseline reference data in your site condition report?

☐ No

☐ Yes

6 Other supporting information

6a Provide a non-technical summary of your application

Write a summary that explains your application. Summarise the key technical standards and control measures for your proposed changes. Use non-technical language wherever possible and avoid detailed data and scientific discussion. Other parts of the application form will ask for these details when necessary.

For mobile plant, tell us how the proposed changes could impact land quality. Describe the mobility of your plant and how you intend to operate.

6 Other supporting information, continued

Document reference of the non-technical summary

Permit Variation Application: Appendix 1

6b Updated site plans (not for mobile plant)

If you are extending your site boundary or adding a discharge point you must send us a revised site plan or plans.

For an example of a suitable plan please see **Appendix 3**.

If you are sending us a paper copy of your plan it must be either A3 or A4 size. Alternatively, you can send us an electronic copy. For both formats, the plan must be legible at A4 size, drawn to scale, and include a scale bar. The plan should also include a date, a reference and local features.

For installations, waste and mining waste operations your site plan must also:

- identify all the land on which your activities will take place
- clearly show the outline of the site (preferably in a green colour)

It may be possible to incorporate your site plan into your site condition report plan.

For water discharge or groundwater activity permits your site plan must also show:

- any treatment plant
- the sample point
- the point where the effluent is discharged to the receiving environment

Are you extending your site boundary or adding a discharge point?

☐ No

☒ Yes

Document reference/s of the plans

Drawing No. DR_0007

6c Fire prevention plan (not for mobile plant)

You may need to submit a fire prevention plan (FPP) if you want to start storing combustible waste.

You may need to submit a revised FPP if your changes will increase the fire risk in other ways. This could be an increase in the risk of a fire occurring or an increase in the environmental risk if a fire occurs.

You will not need an FPP if both of the following apply:

- you only store waste with low combustibility
- we are satisfied that you can meet the 3 fire prevention objectives without using any of the measures in our FPP guidance (or alternative measures)

See our FPP guidance at: <https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits>

6 Other supporting information, continued

Complete this question if you accept or propose to accept combustible waste.

6c.1 Does our Fire Prevention Plan guidance apply to any of your activities?

- ☒ No Go to section 7
☐ Yes Go to question 6c.2

6c.2 Do you want to start storing combustible waste or will the fire risk increase in other ways?

- ☒ No
☐ Yes Provide a fire prevention plan or revised fire prevention plan that meets our guidance.

Document reference of the fire prevention plan

7 Consultation

Complete questions 7a to 7c for installations and waste operations and 7d for installations only. You will only need to answer the following questions if your proposed changes will result in the release of any substances to sewer or certain waters.

Does the change or addition to the waste operation or installation involve releasing any substance into any of the following?

7a A sewer managed by a sewerage undertaker?

- ☒ No
☐ Yes Please name the sewerage undertaker

7b A harbour managed by a harbour authority?

- ☒ No
☐ Yes Please name the harbour authority

7c Directly into inshore waters?

- ☒ No
☐ Yes Please name the relevant Inshore Fisheries and Conservation Authority (<https://association-ifca.org.uk/>)

7 Consultation, continued

7d Is the installation on a site for which:

7d.1 a nuclear site licence is needed under section 1 of the Nuclear Installations Act 1965?

☒ No

☐ Yes

7d.2 a policy document for preventing major accidents is needed under regulation 5 of the Control of Major Accident Hazards Regulations 2015, or a safety report is needed under regulation 7 of those Regulations?

☒ No

☐ Yes

8 How to contact us

If you have difficulty using this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: www.gov.uk/government/organisations/environment-agency

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form?

We will use your feedback to improve our forms and guidance notes

Would you like a reply to your feedback?

☐ Yes please

☐ No thank you

Appendix 1 – Low impact installation checklist (if you completed question 2f, low impact installations, you must also complete this checklist below).

Guidance for applicants on low impact installations

The Industrial Emissions Directive (IED) requires us to permit all installations regardless of their potential for environmental harm.

Consequently, we have developed the Low Impact Installation (LII) permit. If the criteria for LII are met, then a simpler permitting approach is adopted but all other aspects of the Environmental Permitting Regulations (EPR) still apply. LII sites are expected to require minimal regulatory effort by our staff.

Such reduction in regulatory effort can be reflected in lower subsistence charges for operators. The low impact qualifying criteria are demanding, as they are not designed to circumvent the purposes of the IED Directive or the Environment Permitting Regulations that implement them.

We do not consider the following waste activities under Schedule 1 of the Environmental Permitting Regulations to be eligible for the low impact approach:

- Section 5.1 – Incineration and co-incineration of waste
- Section 5.2 – Disposal of waste by landfill
- Section 5.3 – Disposal or recovery of hazardous waste, (except for standard rules SR2012 No13 for the treatment of incinerator bottom ash)
- Section 5.4 – Disposal, recovery or a mix of disposal and recovery of non-hazardous waste
- Section 5.6 – Temporary or underground storage of hazardous waste Requirements on the operator

Requirements on the operator

If you can comply with this guidance, you may pay the lower subsistence charge, as set out in our charges scheme. You must first demonstrate to us that your installation can have only a low impact on the environment through your variation application. We will check that the application is duly made and meets the criteria set out in this guidance. If we do not agree that the installation meets these criteria, we will not proceed to determine the application.

An application for a permit variation must address all the matters set out in the guidance on environmental permitting applications in sufficient detail to allow us to determine it, even if you believe that you are likely to satisfy the LII criteria. You must show through your application that your installation meets each of the conditions set out below. The application might not have to be as detailed as that required for installations that do not meet these criteria. However, it will still need to be made in the proper manner, advertised and entered on the Public Register in the usual way. In coming to our view, we will consider any comments that we receive about the application as part of the consultation process.

The permit conditions for a LII will meet the requirements of the Environmental Permitting Regulations. The permit conditions will also aim to ensure that an installation is operated in such a way that all appropriate measures are taken to avoid pollution, in particular through the application of best available techniques (BAT) and achieving a high level of protection of the environment as a whole. The operator will be required to report each year that the installation is still running as set out in the application and certify that actual releases remain below the levels set out in this guidance.

Appendix 1 – Low impact installation checklist, continued

Installation reference

Low impact installation criterion	Section of supporting document that shows how your proposed activity meets the LII criterion	Do you meet LII criterion?
A – Management techniques		☐ Yes ☐ No
B – Aqueous waste		☐ Yes ☐ No
C – Abatement systems/ releases to air		☐ Yes ☐ No
D – Emissions to groundwater		☐ Yes ☐ No
E – Waste production		☐ Yes ☐ No
F – Energy consumption		☐ Yes ☐ No
G – Accident prevention		☐ Yes ☐ No
H – Noise		☐ Yes ☐ No
I – Emissions of polluting substances		☐ Yes ☐ No
J – Odours		☐ Yes ☐ No
K – Compliance history		☐ Yes ☐ No

If you answered 'No' to any of the questions above, your installation cannot be considered as a low impact installation.

Appendix 1 – Low impact installation checklist, continued

Determination of low impact installations

We will determine what constitutes a low impact installation according to the principles set out below. You must demonstrate to our satisfaction that such is the nature of the installation, there is no reasonable likelihood that you will fail to meet any of these criteria.

- A. **Management techniques:** All the criteria described below must be met without having to rely on significant management effort. In other words, the installation intrinsically must have only a low environmental impact, including under start up, shut down, or abnormal operating conditions.
- B. **Wastewater:** The installation must not release more than 50 m³ per day of water from process activities conducted at the installation giving rise to effluent. No account need be taken of the volume of water exported from the installation as product. Characterise and quantify any aqueous effluents released from the installation on a daily basis and provide justification that the installation releases no more than 50 m³ per day of water from process activities.
- C. **Abatement systems/releases to air:** The installation must comply with the criteria in this guidance without having to rely on active abatement for releases to the environment outside of any buildings. Releases must not be dependent on continuing or correct operation of equipment, where failure of active pollution prevention systems could result in an unacceptable external release. For example, if the installation depends on active abatement in the form of scrubbers, filters or electrostatic precipitators to achieve the releases to the environment set out in this guidance, it is unlikely that it can be treated as having only a low potential for impact. However, abatement systems installed solely for the protection of workers (where abatement is not to attenuate external environmental releases) need not be included in this assessment.
- D. **Emissions to groundwater:** There must be no planned or fugitive emission from the permitted installation into the ground, or any soak away. This does not preclude the discharge of clean rainwater run-off into soak ways.
- E. **Waste production:** The installation must not produce more than one tonne of waste or 10 kg of hazardous waste per day, averaged over a year, with no more than 20 tonnes of Directive waste or 200 kg of hazardous waste being produced in any one day.
- F. **Energy consumption:** The installation must not consume energy at a rate greater than 3 MW or, if the installation uses a combined heat and power installation to supply any internal process heat, 10 MW. These limits apply to the sum of energy imported as electricity and produced on site through the combustion of fuels.
- G. **Accident prevention:** You must have in place satisfactory containment measures to prevent fugitive emissions to surface water, sewer or land and ensure that these are adequately maintained at all times. This requirement applies to all substances present on site and in any quantity.
- H. **Noise:** There must be only a low potential for causing offence due to noise. An installation will not be considered as a low impact installation if it may give rise to noise noticeable outside the installation boundary. This requires the exercise of judgement, taking account of any history of noise complaint arising from the installation and consideration of the likely offsite noise levels and proximity of sensitive receptors. Describe the main sources of noise from the installation, the nearest noise sensitive locations and any relevant noise measurement surveys which have been undertaken, and the proposed techniques and measures for the control of noise. Provide justification that there is only a low potential for offence due to noise.

Appendix 1 – Low impact installation checklist, continued

- I. **Emissions of polluting substances:** Justify that there will be no likelihood of a release to the environment of any particular substance from the whole installation at a rate greater than that determined as insignificant as set out in our guidance note (search for ‘Control and monitor emissions for your environmental permit’ at: <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit>). Describe the nature, quantities and sources of foreseeable emissions from the installation.
- J. **Odour:** There must be only a low potential for giving offence due to odour. An installation will not be considered as a low impact installation if it may give rise to an offensive smell noticeable outside the installation boundary. This requires the exercise of judgement, taking account of any history of odour complaint from the installation and whether this class of activity is known by experience to give rise to smells. A significant possibility or actual history of excursions or fugitive emissions, for example from stored materials, would suggest that the installation could not be treated as having a low impact. Provide details of potential sources of odour from the installation, for example from stored materials, and justify that there is only a low potential for offence due to odour.
- K. **Compliance history:** If any of the following enforcement actions have taken place at the same installation under the same management (and where appropriate, have not been overturned on appeal), then it will not normally be considered further as a low impact installation:
- prosecution*
 - formal caution*
 - suspension notice*
 - enforcement notice relating to an actual or potential environment incident*
- * (All under EPR or the equivalent under previous environmental regimes)

Appendix 2 – Date of birth information for Relevant offences and/or Technical competence questions only

Date of birth information in this appendix will not be put onto our Public Register

1 Relevant Offences – date of birth information for each relevant person

Please give us the following details if you have answered ‘Yes’ to question 3a1

Name of relevant person 1

Date of birth (DD/MM/YY)

Name of relevant person 2

Date of birth (DD/MM/YY)

Name of relevant person 3

Date of birth (DD/MM/YY)

Name of relevant person 4

Date of birth (DD/MM/YY)

Continue on a separate sheet as required

Document reference of continuation sheet

Appendix 2 – Date of birth information for Relevant offences and/or Technical competence questions only, continued

2 Technical competence – date of birth information for each technically competent manager

Please give us the following details (relevant waste operations only)

Name of technically competent manager 1

Wayne Read

Date of birth (DD/MM/YY)



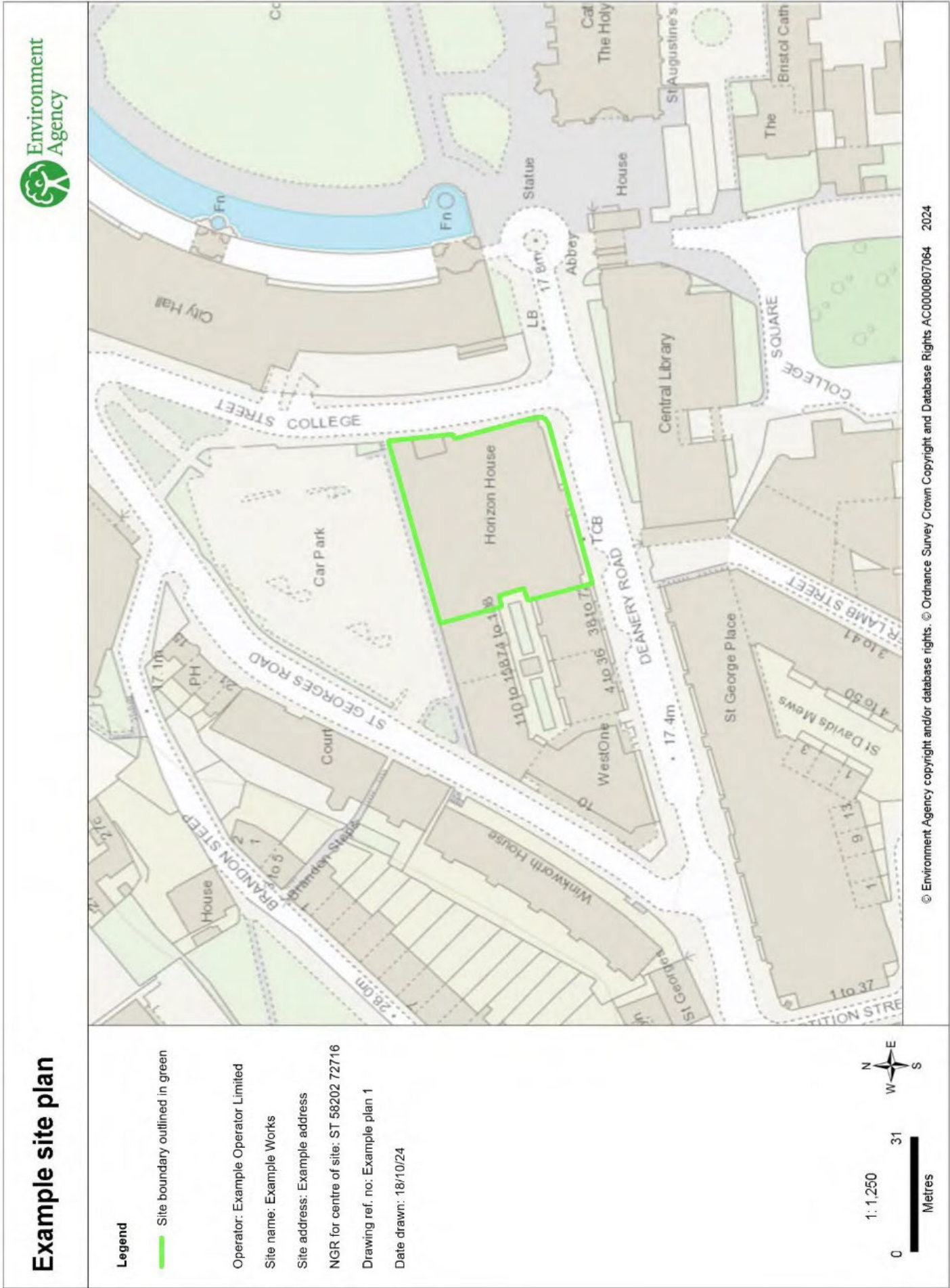
Name of technically competent manager 2

Date of birth (DD/MM/YY)

Continue on a separate sheet as required

Document reference of continuation sheet

Appendix 3 – Example site plan



Copyright issue

Please note that some plans and maps will be copyright. Unless you are using your own maps or plans or have paid for the copyright (for example with Ordnance Survey) you may not have the right to reproduce the map or plan.

Application for an environmental permit

Part C3 – Variation to a bespoke installation permit



Environment
Agency

Fill in this part of the form, together with part A, part C2 and part F1, if you are applying to vary (change) the conditions or any other part of the permit.

Please check that this is the latest version of the form available from our website.

You only need to give us details in this application for the parts of the permit that will be affected (for example, if you are adding a new facility or making changes to existing ones).

You do not need to resend any information from your original permit application if it is not affected by your proposed changes.

Please read through this form and the guidance notes that go with it.

The form can be:

- 1) saved onto a computer and then filled in. Please note that the form follows a logic that means questions will open or stay closed depending on a previous answer. So you may not be able to enter text in some boxes.
- 2) printed off and filled in by hand. Please write clearly in the answer spaces.

It will take less than three hours to fill in this part of the application form.

Contents

- 1 What activities are you applying for?
- 2 Point source emissions to air, water and land
- 3 Operating techniques
- 4 Monitoring
- 5 Environmental impact assessment
- 6 Resource efficiency and climate change
- Appendix 1 – Specific questions for the combustion sector
- Appendix 2 – Specific questions for the chemical sector
- Appendix 3 – Specific questions for the waste incineration sector
- Appendix 4 – Specific questions for the landfill sector and recovery of hazardous waste on land activities

1 What activities are you applying to vary?

Fill in Table 1a below with details of all the activities listed in schedule 1 or other references (see note 1) of the Environmental Permitting Regulations (EPR) and all directly associated activities (DAAs) (in separate rows), that you propose to vary.

Note: if you want to add a Medium Combustion Plant or Specified Generator (MCP/SG) to your installation please use part C2.5 instead. If you want to vary an intensive farm permit please use part C3.5 instead.

Fill in a separate table for each installation you are applying to vary. Use a separate sheet if you have a long list and send it to us with your application form. Tell us below the reference you have given the document.

Document reference

1 What activities are you applying to vary?, continued**Table 1a – Types of activities**

Schedule 1 listed activities						
Installation name	Schedule 1 or other references (See note 1)	Description of the activity (See note 2)	Activity capacity (See note 3)	Annex I (D codes) and Annex II (R codes) and descriptions	Hazardous waste treatment capacity (if this applies) (See note 3)	Non-hazardous waste treatment capacity (if this applies) (See note 3)
If there are not enough rows, send a separate document and give the document reference number here	Put your main activity first			For installations that take waste only	For installations that take waste only	For installations that take waste only
A303 IBA Facility	S5.4 Part A(1) (b)	Recovery or a mix of	1216	R4, R5		1216
Directly associated activities (See note 4)						
Name of DAA If there are not enough rows, send a separate document and give the document reference number here		Description of the DAA (please identify the schedule 1 activity it serves)				
For installations that take waste (See note 5 below)		Total storage capacity				150000
		Annual throughput (tonnes each year)				220280

1 What activities are you applying to vary?, continued

Notes

1. Quote the section number, part A1 or A2 or B, then paragraph and sub paragraph number as shown in EPR part 2 of schedule 1.
2. Use the description from schedule 1 of EPR. Include any extra detail that you think would help to accurately describe what you want to do.
3. By ‘capacity’, we mean:
 - the total incineration capacity (tonnes every hour) for waste incinerators
 - the total landfill capacity (cubic metres) for landfills
 - the total capacity (cubic metres) for the recovery of hazardous waste on land
 - the total treatment capacity (tonnes each day) for waste treatment operations
 - the total storage capacity (tonnes) for waste storage operations
 - the processing and production capacity for manufacturing operations, or
 - the thermal input capacity for combustion activities
4. Fill this in as a separate line and give an accurate description of any other activities associated with your schedule 1 activities. You cannot have Directly Associated Activities (DAAs) as part of a mobile plant application.
5. By ‘total storage capacity’, we mean the maximum amount of waste, in tonnes, you store on the site at any one time.

Types of waste accepted

For those installations that take waste, for each line in Table 1a (including DAAs), fill in a separate document to list those wastes you will accept on to the site for that activity. Give the List of Wastes catalogue code and description (see <https://www.gov.uk/government/publications/waste-classification-technical-guidance>).

If you need to exclude waste from your activity or facility by restricting the description, quantity, physical nature, hazardous properties, composition or characteristic of the waste, include these in the document. Send it to us with your application form.

Please provide the reference for each document.

You can use Table 1b as a template.

If you want to accept any waste with a code ending in 99, you must provide more information and a full description of the waste in the document, (for example, detailing the source, nature and composition of the waste). Where you only want to receive specific wastes within a waste code you can provide further details of the waste you want to receive. Where a waste is dual coded you should use both codes for the waste.

Document reference of this extra information 19 01 12, 19 12 02, 19 12 03, 19 12 12.

1 What activities are you applying to vary?, continued**Table 1b – Template example – types of waste accepted and restrictions**

Waste code	Description of the waste
Example	Example
02 01 08*	Agrochemical waste containing hazardous substances
18 01 03*	Infectious clinical waste, not contaminated with chemicals or medicines – human healthcare (may contain sharps) for alternative treatment
17 05 03*/17 06 05*	Non-hazardous soil from construction or demolition contaminated with fragments of asbestos cement sheet

1c Recovery of hazardous waste on land

Are you applying for a waste recovery activity involving the permanent deposit of inorganic hazardous waste on land for construction or land reclamation?

No ☒ Now go to question 2

Yes ☐

Have you written a waste recovery plan (WRP) that shows that you will use waste to perform the same function as non waste materials you would have used?

No You must write a WRP to support your application.

Yes

Have we advised you during pre-application discussions that we believe the activity is waste recovery?

No

Yes

Have there been any changes to your proposal since the discussions?

No

Yes

Please send us a copy of your current waste recovery plan that complies with our guidance at <https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-recovery-plans-and-deposit-for-recovery-permits>. You need to highlight any changes you may have made since your pre-application discussions.

Document reference

Please note that there is an additional charge for the assessment or re assessment of a waste recovery plan that must be submitted as part of this application. For the charge see <https://www.gov.uk/government/publications/environmental-permitting-charges-guidance/environmental-permitting-charges-guidance>

2 Point source emissions to air, water and land

Fill in Table 2 below with details of the point source emissions that result from the operating techniques at each of your installations.

Fill in one table for each installation, continuing on a separate sheet if necessary.

Table 2 – Emissions (releases)

Installation name	A303 IBA Facility			
Point source emissions to air				
Emission point reference and location	Source	Parameter	Quantity	Unit
EP1	Materials	Dust		2 - 5 mg/nm ³
EP2	Dry Separation	Dust	2 - 5	mg/nm ³
Point source emissions to water (other than sewers)				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				
Point source emissions to sewers, effluent treatment plants or other transfers off site				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				
Point source emissions to land				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				

You will also need to complete application form part C6 if your variation includes changing or adding a point source emission(s) to:

- water
- groundwater or
- sewer

Supporting information

3 Operating techniques

3a Technical standards

Fill in Table 3a for each activity at the installation you refer to in Table 1a above and list the ‘Best Available Techniques’ you are planning to use. If you use the standards set out in the relevant BAT conclusion(s), BAT reference document(s) (BREF) and/or technical guidance(s) (TGN) there is no need to justify using them within your documents in Table 3a.

For Part A(2) activities refer to <https://www.gov.uk/government/collections/integrated-pollution-prevention-and-control-sector-guidance-notes> and for Part B and Schedule 14 activities see <https://www.gov.uk/government/collections/local-air-pollution-prevention-and-control-lappc-process-guidance-notes>

You must justify your decisions in a separate document if:

- there is no technical standard
- the technical guidance provides a choice of standards, or
- you plan to use another standard

This justification could include a reference to the Environmental Risk Assessment provided in part C2 (general bespoke permit) of the application form.

For each of the activities listed in Table 1a, the documents in Table 3a should summarise:

- the operations undertaken
- the measures you will use to control the emissions from your process, as identified in your risk assessment or the relevant BAT conclusions, BREF or technical guidance
- how you will meet other standards set out in the relevant BAT conclusions document, BREF or technical guidance

Table 3 – Technical standards

Fill in a separate table for each activity at the installation.

Installation name	A303 IBA Facility	
Description of the schedule 1 activity or directly associated activity	Best available technique (BATC, BREF or TGN reference) (see footnote below)	Document reference (if appropriate)
Recovery or a mix of recovery and disposal of non - hazardous waste with a capacity exceeding 75 tonnes per day involving	BAT Conclusions for Waste Incineration dated 3 December 2019	

* Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control)

In all cases, describe the type of facility or operation you are applying for and provide site infrastructure plans, location plans and process flow diagrams or block diagrams to help describe the operations and processes undertaken. Give the document references you use for each plan, diagram and description.

Document reference

Permit Variation Application.

3a1 Does your permit (in Table 1.2 Operating Techniques or similar table in the permit) have references to any of your own documents or parts of documents submitted as part of a previous application for this site?

No ☐ Now go to 3b

Yes ☒ Please tell us in a separate document what document references are no longer valid or have been superseded and why

Please also tell us below the reference number you have given the document and send it in with your application

Document reference

Permit Variation Application, Table 5.

3b General requirements

Fill in a separate Table 4 for each installation.

Table 4 – General requirements

Name of the installation	A303 IBA Facility
If the technical guidance or your risk assessment shows that emissions of substances not controlled by emission limits are an important issue, send us your plan for managing them	Document reference or references Appendix 12 to permit variation
Where the technical guidance or your risk assessment shows that odours are an important issue, send us your odour management plan	Document reference or references n/a
If the technical guidance or your risk assessment shows that noise or vibration are important issues, send us your noise or vibration management plan (or both)	Document reference or references n/a

For guidance on risk assessments for your environmental permit see <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>

3c Types and amounts of raw materials

Fill in Table 5 for all schedule 1 activities. Fill in a separate table for each installation.

Table 5 – Types and amounts of raw materials

Name of the installation		A303 IBA Facility		
Capacity (See note 1 below)				
Schedule 1 activity	Description of raw material and composition	Maximum amount (tonnes) (See note 2 below)	Annual throughput (tonnes each year)	Description of the use of the raw material including any main hazards (include safety data sheets)
Recovery or a mix of recovery and disposal of				

Notes

- By 'capacity', we mean the total storage capacity (tonnes) or total treatment capacity (tonnes each day).
- By 'maximum amount', we mean the maximum amount of raw materials on the site at any one time. Use a separate sheet if you have a long list of raw materials, and send it to us with your application form. Please also provide the reference of this extra sheet.

Document reference

Permit Variation Application: Table 4

3d Information for specific sectors

For some of the sectors, we need more information to be able to set appropriate conditions in the permit. This is as well as the information you may provide in sections 5, 6 and 7. For those activities listed below, you must answer the questions in the related document.

Table 6 – Questions for specific sectors

Sector	Appendix
Combustion	See the questions in appendix 1
Chemicals	See the questions in appendix 2
Incinerating waste	See the questions in appendix 3
Landfill and recovery of hazardous waste on land	See the questions in appendix 4

General information

Complete section 4 if you are proposing to change or add an emission point(s).

4 Monitoring

4a Describe the measures you use for monitoring emissions by referring to each emission point in Table 2 above

You should also describe any environmental monitoring. Tell us:

- how often you use these measures
- the methods you use
- the procedures you follow to assess the measures

Document reference

Annually to ensure emission levels are 2 - 5mg/Nm³.

4b Point source emissions to air only

4b1 Has the sampling location been designed to meet BS EN 15259 clause 6.2 and 6.3?

No ☐

Yes ☒

4b2 Are the sample ports large enough for monitoring equipment and positioned in accordance with section 6 and appendix A of BS EN 15259?

No ☐

Yes ☒

4b3 Is access adjacent to the ports large enough to provide sufficient working area, support and clearance for a sample team to work safely with their equipment throughout the duration of the test?

No ☐

Yes ☒

4b4 Are the sample location(s) at least 5 HD from the stack exit

No ☐

Yes ☒

4b5 Are the sample location(s) at least 2 HD upstream from any bend or obstruction?

No ☐

Yes ☒

4b6 Are the sample location(s) at least 5 HD downstream from any bend or obstruction?

No ☐

Yes ☒

4b7 Does the sample plane have a constant cross sectional area?

No ☐

Yes ☒

4b8 If horizontal, is the duct square or rectangular (unless it is less than or equal to 0.35 m in diameter)

No ☒

Yes ☐

4b9 If you have answered 'No' to any of the questions 4b1 to 4b8 above, provide an assessment to how the standards in BS EN 15259 will be met.

Document reference of the assessment

4b8 - Circular duct with a constant cross section

5 Environmental impact assessment

5a Have your proposals been the subject of an environmental impact assessment under Council Directive 85/337/EEC of 27 June 1985 [Environmental Impact Assessment] (EIA)?

No ☒ Now go to question 6

Yes ☐ Please provide a copy of the environmental statement and, if the procedure has been completed:

- a copy of the planning permission
- the committee report and decision on the EIA

Document reference of the copy

6 Resource efficiency and climate change

If the site is a landfill or a recovery of hazardous waste on land activity, you only need to fill in this section if the application includes gas engines.

6a Describe the basic measures for improving how energy efficient your activities are

Document reference of the description

Refer to application report

6b Provide a breakdown of any changes to the energy your activities use up and create

Document reference of the description

Refer to application report

6c Have you entered into, or will you enter into, a climate change levy agreement?

No ☒ Describe the specific measures you use for improving your energy efficiency

Document reference of the description

Yes ☐ Please give the date you entered
(or the date you expect to enter)
into the agreement (DD/MM/YYYY)

Please also provide documents that prove you are taking part in the agreement.

Document reference of the proof

6d Explain and justify the raw and other materials, other substances and water that you will use

Document reference of the justification

Refer to application report

6e Describe how you avoid producing waste in line with Council Directive 2008/98/EC on waste

If you produce waste, describe how you recover it. If it is technically and financially impossible to recover the waste, describe how you dispose of it while avoiding or reducing any effect it has on the environment.

Document reference of the description

Refer to application report

7 How to contact us

If you need help filling in this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: <https://www.gov.uk/government/organisations/environment-agency>

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form? _____

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

Yes please ☐

No thank you ☐



For Environment Agency use only

Date received (DD/MM/YYYY)

Payment received?

No ☐

Our reference number

Yes ☐

Amount received

£ _____

Plain English Campaign's Crystal Mark does not apply to appendices 1 to 4.

Appendix 1 – Specific questions for the combustion sector

1 Identify the type of fuel burned in your combustion units (including when your units are started up, shut down and run as normal). If your units are dual fuelled (that is, use two types of fuel), list both the fuels you use

Fill in a separate table for each installation.

Installation reference			
Type of fuel	When run as normal	When started up	When shut down
Coal	☐	☐	☐
Gas oil	☐	☐	☐
Heavy fuel oil	☐	☐	☐
Natural gas	☐	☐	☐
WID waste	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Biomass (see notes 1 and 2 below)	☐	☐	☐
Landfill gas	☐	☐	☐
Other	☐	☐	☐

Notes

- Not covered by Industrial Emissions Directive 2010/75/EU.
- 'Biomass' is referred to The Renewables Obligation Order 2002 (<https://www.legislation.gov.uk/ukxi/2002/914/contents/made>)

Give extra information if it helps to explain the fuel you use.

Document reference

Appendix 1 – Specific questions for the combustion sector, continued

2 Give the composition range of any fuels you are currently allowed to burn in your combustion plant

Fill in a separate table for each installation, continuing on a separate sheet if necessary

Fuel use and analysis					
Installation reference					
Parameter	Unit	Fuel 1	Fuel 2	Fuel 3	Fuel 4
Maximum percentage of gross thermal input	%				
Moisture	%				
Ash	% wt/wt dry				
Sulphur	% wt/wt dry				
Chlorine	% wt/wt dry				
Arsenic	% wt/wt dry				
Cadmium	% wt/wt dry				
Carbon	% wt/wt dry				
Chromium	% wt/wt dry				
Copper	% wt/wt dry				
Hydrogen	% wt/wt dry				
Lead	% wt/wt dry				
Mercury	% wt/wt dry				
Nickel	% wt/wt dry				
Nitrogen	% wt/wt dry				
Oxygen	% wt/wt dry				
Vanadium	mg/kg dry				
Zinc	mg/kg dry				
Net calorific value	MJ/kg				

Appendix 1 – Specific questions for the combustion sector, continued**3 If NO_x factors are necessary for reporting purposes (that is, if you do not need to monitor emissions), please provide the factors associated with burning the relevant fuels**

Fill in a separate table for each installation.

Installation reference	
Fuel	NO _x factor (kg t ⁻¹)
Fuel 1	
Fuel 2	
Fuel 3	
Fuel 4	

Note: kg t⁻¹ means kilograms of nitrogen oxides released for each tonne of fuel burned.

4 Will your combustion plant be subject to Chapter III of the Industrial Emissions Directive 2010/75/EU?

No ☐ Now fill in application form part F

Yes ☐

5 What is your plant?

an existing one ☐ A plant licensed before 1 July 1987

a new one ☐ A plant licensed on or after 1 July 1987 but before 27 November 2002, or a plant for which an application was made before 27 November 2002 and which was put into operation before 27 November 2003

a new-new one ☐ A plant for which an application was made on or after 27 November 2002 If you run more than one type of plant or a number of the same type of plant on your installation, please list them in the table below

6 If you run more than one type of plant or a number of the same type of plant on your installation, please list them in the table below

Fill in a separate table for each installation.

Installation reference	
Type of plant	Number within installation
Existing	
New	
New-new	
Gas turbine (group A)	
Gas turbine (group B)	

Appendix 1 – Specific questions for the combustion sector, continued**7 If you run an existing plant, have you submitted a declaration for the ‘limited life derogation’ set out in Article 33 of Chapter III of the Industrial Emissions Directive?**No ☐ Now go to question 9Yes ☐**8 Have you subsequently withdrawn your declaration?**No ☐Yes ☐**9 List the existing large combustion plants (LCPs) which have annual mass allowances under the National Emission Reduction Plan (NERP), and those with emission limit values (ELVs) under the LCPD**

Installation reference	
LCPs under NERP	LCPs with ELVs

10 Do you meet the monitoring requirements of Chapter III of the Industrial Emissions Directive?No ☐Yes ☐ Document reference **11 Are you substantially refurbishing an existing installation according to the meaning given in Article 14 of the Energy Efficiency Directive?**No ☐Yes ☐ Now go to question 12**12 Have you carried out a cost–benefit assessment (CBA) of opportunities for cogeneration (combined heat and power) or district heating under Article 14 of the Energy Efficiency Directive?**No ☐ Please provide supporting evidence of why a CBA is not required (for example, an agreement from us)Document reference of this evidence Yes ☐ Please submit a copy of your CBADocument reference of the CBA

Appendix 2 – Specific questions for the chemical sector

1 Please provide a technical description of your activities

- The description should be enough to allow us to understand:
- the process
- the main plant and equipment used for each process
- all reactions, including significant side reactions (that is, the chemistry of the process)
- the material mass flows (including by products and side streams) and the temperatures and pressures in major vessels
- the all emission control systems (both hardware and management systems), for situations which could involve releasing a significant amount of emissions – particularly the main reactions and how they are controlled
- a comparison of the indicative BATs and benchmark emission levels standards: technical guidance notes (TGNs) (see <https://www.gov.uk/government/collections/technical-guidance-for-regulated-industry-sectors-environmental-permitting>); additional guidance ‘The production of large volume organic chemicals’ (EPR 4.01); ‘Speciality organic chemicals sector’ (EPR 4.02); ‘Inorganic chemicals sector’ (EPR 4.03); and best available techniques reference documents (BREFs) for the chemical sector

Document reference

2 If you are applying for a multi-purpose plant, do you have a multi-product protocol in place to control the changes?

No ☐

Yes ☐ Provide a copy of your protocol to accompany this application

Document reference

3 Does Chapter V of the Industrial Emissions Directive (IED) apply to your activities?

No ☐

Yes ☐ Fill in the following

3a List the activities which are controlled under the IED

Installation reference	
Activities	

3b Describe how the list of activities in question 3a above meets the requirements of the IED

Document reference

Appendix 3 – Specific questions for the waste incineration sector

If you are proposing to accept clinical waste, please complete your answer to question 3a ‘Technical standards’ with reference to relevant parts of our healthcare waste appropriate measures guidance (see <https://www.gov.uk/guidance/healthcare-waste-appropriate-measures-for-permitted-facilities>)

1a Do you run incineration plants as defined by Chapter IV of the Industrial Emissions Directive (IED)?

No ☐ You do not need to answer any other questions in this appendix

Yes ☐ IED applies

1b Are you subject to IED as

An incinerator? ☐

A co-incinerator? ☐

2 Do any of the installations contain more than one incineration line?

No ☐ Now go to question 4

Yes ☐

3 How many incineration lines are there within each installation?

Fill in a separate table for each installation.

Installation reference		
Number of incineration lines within the installation		
Reference identifiers for each line		

You must provide the information we ask for in questions 4, 5 and 6 below in separate documents. The information must at least include all the details set out in section 2 (‘Key Issues’) of S5.01 ‘Incineration of waste: additional guidance’ (under the sub heading ‘European legislation and your application for an EP Permit’). See <https://www.gov.uk/government/collections/technical-guidance-for-regulated-industry-sectors-environmental-permitting>.

You must answer questions 7 to 13 on the form below.

4 Describe how the plant is designed, equipped and will be run to make sure it meets the requirements of IED, taking into account the categories of waste which will be incinerated

Document reference

5 Describe how the heat created during the incineration and co-incineration process is recovered as far as possible (for example, through combined heat and power, creating process steam or district heating)

Document reference

Appendix 3 – Specific questions for the waste incineration sector, continued

6 Describe how you will limit the amount and harmful effects of residues and describe how they will be recycled where this is appropriate

Document reference _____

For each line identified in question 3, answer questions 7 to 13 below

Question 3 identifier, if necessary _____

7 Do you want to take advantage of the Article 45 (1)(f) allowance (see below) if the particulates, CO or TOC continuous emission monitors (CEM) fail?

No ☐

Yes ☐ This allows ‘abnormal operation’ of the incineration plant under certain circumstances when the CEM for releases to air have failed. Annex VI, Part 3(2) sets maximum half hourly average release levels for particulates (150 mg/m³), CO (normal ELV) and TOC (normal ELV) during abnormal operation.

Describe the other system you use to show you keep to the requirements of Article 13(4) (for example, using another CEM, providing a portable CEM to insert if the main CEM fails, and so on).

8 Do you want to replace continuous HF emission monitoring with periodic hydrogen fluoride (HF) emission monitoring by relying on continuous hydrogen chloride (HCl) monitoring as allowed by IED Annex VI, Part 6 (2.3)?

Under this you do not have to continuously monitor emissions for hydrogen fluoride if you control hydrogen chloride and keep it to a level below the HCl ELVs.

No ☐

Yes ☐ Please give your reasons for doing this

Appendix 3 – Specific questions for the waste incineration sector, continued

9 Do you want to replace continuous water vapour monitoring with pre-analysis drying of exhaust gas samples, as allowed by IED Annex VI, Part 6 (2.4)?

Under this you do not have to continuously monitor the amount of water vapour in the air released if the sampled exhaust gas is dried before the emissions are analysed.

No ☐

Yes ☐ Please give your reasons for doing this

10 Do you want to replace continuous hydrogen chloride (HCl) emission monitoring with periodic HCl emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for hydrogen chloride if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give your reasons for doing this

Appendix 3 – Specific questions for the waste incineration sector, continued

11 Do you want to replace continuous HF emission monitoring with periodic HF emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for hydrogen fluoride if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give your reasons for doing this

12 Do you want to replace continuous SO₂ emission monitoring with periodic sulphur dioxide (SO₂) emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for sulphur dioxide if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give your reasons for doing this

Appendix 3 – Specific questions for the waste incineration sector, continued

13 If your plant uses fluidised bed technology, do you want to apply for a derogation of the CO WID ELV to a maximum of 100 mg/m³ as an hourly average, as allowed by IED Annex VI, Part 3?

No ☐

Does not apply ☐

Yes ☐ Please give your reasons for doing this

14 Are you substantially refurbishing an existing installation according to the meaning given in Article 14 of the Energy Efficiency Directive?

No ☐

Yes ☐ Please go to question 15

Document reference of the CHP-ready assessment

15 Have you carried out a cost–benefit assessment (CBA) of opportunities for cogeneration (combined heat and power) or district heating under Article 14 of the Energy Efficiency Directive?

No ☐ Please provide supporting evidence of why a CBA is not required (for example, an agreement from us)

Document reference of this evidence

Yes ☐ Please submit a copy of your CBA

Document reference of the CBA

Appendix 4 – Specific questions for the landfill sector and recovery of hazardous waste on land activities

- 1. For the landfill sector, provide your Environmental Setting and Installation Design (ESID) report and any other risk assessments to control emissions.**

For recovery of hazardous waste on land activities, provide your Environmental Setting and Site Design (ESSD) report and any other risk assessments to control emissions

Document reference

- 2. For recovery of hazardous waste on land activities, provide your Waste Acceptance Procedures (including Waste Acceptance Criteria)**

Document reference

Refer to our guidance at

<https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-acceptance-procedures-for-deposit-for-recovery>

- 3. Provide your hydrogeological risk assessment (HRA) for the site**

Document reference

- 4. Provide your outline engineering plan for the site**

Document reference

- 5. Provide your stability risk assessment (SRA) for the site**

Document reference

- 6. Provide your landfill gas risk assessment (LFGRA) for the site**

Document reference

We have developed guidance on these assessments and their reports which can be found at <https://www.gov.uk/government/collections/environmental-permitting-landfill-sector-technical-guidance>

- 7. For recovery of hazardous waste on land activities, have you completed a monitoring plan for the site?**

No ☐ Please refer to the section of your ESSD that explains why this is unnecessary for your site

Document reference of this evidence

Yes ☐ Document reference

- 8. Have you completed a proposed plan for closing the site and your procedures for looking after the site once it has closed?**

No ☐ If you have answered 'no' for recovery of hazardous waste on land activities, refer to the section of your ESSD that explains why this is unnecessary for your site

Document reference of this evidence

Yes ☐ For landfill you must provide a closure and aftercare plan

Document reference

Application for an environmental permit Part F1 – Charges and declarations



We recommend you use an Adobe Acrobat product to complete the form. You may not be able to complete the form using different software, such as the PDF reader built into your internet browser

Fill in this part for all applications for:

- installations (excluding new permit and variation applications for intensive farming. Use application form Part B3.5 or C3.5 instead)
- waste operations
- mining waste operations
- medium combustion plant
- specified generators
- water discharges (excluding treated domestic sewage effluent discharges of up to 15 cubic metres (15m³) a day into ground or up to 20 cubic metres (20m³) a day to surface water)
- groundwater activities (excluding small discharges of 15m³ per day or less if using Part B6.5 OR existing small discharges to Source Protection Zone1 if using Part B6.6)

Please check that this is the latest version of the form available from our website.

Please read through this form and the guidance notes that came with it.

The form can be:

- 1) saved onto a computer and then filled in.
- 2) printed off and filled in by hand. Please write clearly in the answer spaces.

We anticipate it will take less than 3 hours to fill in this form if you have all the necessary information available.

Contents

- 1 Working out charges**
- 2 Payment**
- 3 Privacy notice**
- 4 Confidentiality and national security**
- 5 Declaration**
- 6 Application checklist**
- 7 How to contact us**
- 8 Where to send your application**

1 Working out charges

You must fill out this section for all applications except for waste mobile plant and Part B surrender notifications.

You have to submit an application fee with your application. For guidance on the fee and how to pay your charges, please see our charging guidance (<https://www.gov.uk/government/publications/environmental-permitting-charges-guidance>) and the current charging scheme <https://www.gov.uk/government/publications/environmental-permits-and-abstraction-licences-tables-of-charges>. You can also contact us for pre-application advice to help work out the charges.

Please note that there is an annual subsistence charge to cover the costs we incur in the ongoing regulation of the permit.

Table 1 – Type and number of facilities being applied for

For example, if you are submitting one installation application, enter the number one into the first column.

Installation	Waste	Mining waste	Medium Combustion Plant (MCP)/ Specified Generator (SG)	Water discharge	Groundwater activity
2					

Table 2 – General application charge (A)

Charge activity reference from the charging scheme tables	Charge activity description from the charging scheme tables	What are you applying for? For example, a new permit, minor variation, normal variation, substantial variation, surrender, low risk surrender, transfer	Amount
e.g. 1.17.3	e.g. Section 5.2 – landfill for hazardous waste	e.g. transfer application	e.g. £5,561
1.16.2.4	Section 5.4 A(1) (b)(iii) - non haz waste installation - treatment of slags & ash.	New	£12,357
1.16.2.4	Section 5.4 A(1) (b)(iii) - non haz waste installation - treatment of slags & ash.	Substantial	£11,121
Total A			23478

1 Working out charges, continued

Table 3 – Additional assessment charges (B)

Part 1.19 Charges for plans and assessments			Tick appropriate
Reference	Plan or assessment	Charge	
1.19.1	Waste recovery plan or variation or revision of a waste recovery plan.	£1,231	☐
1.19.2	Habitats assessment (except where the application activity is a flood risk activity, water discharge or groundwater activity).	£779	☐
1.19.3	Fire prevention plan (except where the application activity is a farming installation).	£1,241	☐
1.19.4	Pests management plan (except where the application activity is a farming installation).	£1,241	☐
1.19.5	Emissions management plan (except where the application activity is a farming installation).	£1,241	☒
1.19.6	Odour management plan (except where the application activity is a farming installation).	£1,246	☐
1.19.7	Noise and vibration management plan (except where the application activity is a farming installation).	£1,246	☐
1.19.8	Ammonia modelling assessment	£620	☐
1.19.9	Dust and bio-aerosol management plan.	£620	☐
1.19.10	Habitats assessment for discharges to water and groundwater activities.	£2,035	☐
1.19.11	Specific Substances Assessment for a water discharge activity to surface water.	£3,774	☐
1.19.12	Specific Substances Assessment for a groundwater activity.	£1,546	☐
1.19.13	Advertising	£500	☐
Total B			1241

Total charges

Add the total charges from Table 1 to the total charges from Table 2 (total A plus total B)

24719

2 Payment

You must fill out this section for all applications except for waste mobile plant and Part B surrender notifications.

Tick below to show how you have paid.

- ☐ Cheque
- ☐ Credit or debit card
- ☒ Electronic transfer (for example, BACS)

Cheques

You should make cheques payable to 'Environment Agency' and make sure they have 'A/c Payee' written across them if it is not already printed on.

2 Payment, continued

Please write the name of your company and application reference number on the back of your cheque. We will not accept cheques with a future date on them.

Credit/debit cards

If you are paying by credit or with debit card we will call you. We can accept payments by Visa, MasterCard or Maestro card only.

☐ Call me to arrange payment by debit or credit card

Electronic transfer BACS

If you choose to pay by electronic transfer, you will need to use the following information to make your payment:

Company name	Environment Agency
Company address	SSCL (Environment Agency), PO Box 797, Newport Gwent, NP10 8FZ
Bank	RBS/NatWest
Address	London Corporate Service Centre, CPB Services, 2nd Floor, 280 Bishopsgate, London EC2M 4RB
Sort code	60-70-80
Account number	10014411
Account name	EA RECEIPTS
Payment reference number	PSCAPPXXXXYYY

You need to create your own reference number. It should begin with PSCAPPWASTE (Waste), PSCAPPINST (Installation), PSCAPPWQ (Water Quality) (to reflect the facility type) and it should include the first five letters of the company name (replacing the X's in the above reference number) and a unique numerical identifier (replacing the Y's in the above reference number). The reference number that you supply will appear on our bank statements.

You should also email your payment details and reference number to ea_fsc_ar@gov.sscl.com.

If you are making your payment from outside the United Kingdom, it must be in sterling. Our IBAN number is GB23NWBK60708010014411 and our SWIFTBIC number is NWBKGB2L.

If you do not quote your reference number, there may be a delay in processing your payment and application.

Provide a unique reference number for the application, i.e. do not only use the company name only

PSCAPPINSTFORTI001

State who is paying (full name and whether this is the agent/applicant/other)

The applicant

Fee paid

£ 24719

Date payment sent (DD/MM/YYYY)

12/09/2025

3 Privacy notice

The Environment Agency runs the environmental permit application service.

See <https://www.gov.uk/guidance/environmental-permits-privacy-notice> for how we use your personal information in services to support environmental permitting.

4 Confidentiality and national security

Confidentiality

We will normally put all the information in your application on a public register of environmental information. However, we may not include certain information in the public register if this is in the interests of national security, or because the information is confidential.

You can ask for information to be made confidential by enclosing a letter with your application giving your reasons. If we agree with your request, we will tell you and not include the information in the public register. If we do not agree with your request, we will let you know how to appeal against our decision, or you can withdraw your application. You can find guidance on confidentiality in ‘Environmental permitting guidance: core guidance’, published by Defra and available at <https://www.gov.uk/government/publications/environmental-permitting-guidance-core-guidance--2>.

Only tick the box below if you wish to claim confidentiality for parts of your application

☐ Please treat the specified information in my application as confidential

National security

You can tell the Secretary of State that you believe including information on a public register would not be in the interests of national security. You must enclose a letter with your application telling us that you have told the Secretary of State and you must still include the information in your application. We will not include the information in the public register unless the Secretary of State decides that it should be included.

You can find guidance on national security in ‘Environmental permitting guidance: core guidance’, published by Defra and available at <https://www.gov.uk/government/publications/environmental-permitting-guidance-core-guidance--2>

You cannot apply for national security via this application.

Now fill in section 5

5 Declaration

If you knowingly or recklessly make a statement that is false or misleading to help you get an environmental permit (for yourself or anyone else), you may be committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

A relevant person should make the declaration (see the guidance notes on part F1). An agent acting on behalf of an applicant is NOT a relevant person.

Each individual (or individual trustee) who is applying for their name to appear on the permit must complete this declaration. You will have to print a separate copy of this page for each additional individual to complete.

If you are transferring all or part of your permit, both you and the person receiving the permit must make the declaration. You must fill in the declaration directly below; the person receiving the permit must fill in the declaration under the heading ‘For transfers only’.

5 Declaration, continued

Note: we will issue a letter to both current and new holders to confirm the transfer. If you are changing address we will need to send this letter to your new address; therefore please tell us your new address in a separate letter.

If you are unable to trace one or more of the current permit holders please see below under the transfers declaration.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

If you deliberately make a statement that is false or misleading in order to get approval you may be prosecuted.

- ☒ Tick this box to confirm that you understand and agree with the declaration above, then fill in the details below (you do not have to provide a signature as well)
- ☐ I confirm that my standard facility will fully meet the rules that I have applied for (this only applies if the application includes standard facilities)
- ☐ Tick this box if you do not want us to use information from any ecological survey that you have supplied with your application (for further information please see the guidance notes on part F1)

Name

Title

Mr

First name

Lee

Last name

Thompson

on behalf of (if relevant; for example, a company or organisation and so on)

Fortis IBA Limited

Position (if relevant; for example, a company or organisation and so on)

Director

Today's date (DD/MM/YYYY)

19/09/2025

For transfers only – declaration for person receiving the permit

A relevant person should make the declaration (see the guidance notes on part F1). An agent acting on behalf of an applicant is NOT a relevant person.

I declare that the information in this application to transfer an environmental permit to me is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

Note: If you cannot trace a person or persons holding the permit you may be able to transfer the permit without their declaration as above. Please contact us to discuss this and supply evidence in your application to confirm you are unable to trace one or all of the permit holders.

If you deliberately make a statement that is false or misleading in order to get approval you may be prosecuted.

5 Declaration, continued

- ☐ Tick this box to confirm that you understand and agree with the declaration above, then fill in the details below (you do not have to provide a signature as well)

Name

Title

First name

Last name

on behalf of (if relevant; for example, a company or organisation and so on)

Position (if relevant; for example, a company or organisation and so on)

Today's date (DD/MM/YYYY)

Now go to section 6

6 Application checklist

You must fill in this section.

If your application is not complete, we will return it to you. If you aren't sure about what you need to send, contact us before you submit your application. For further information on pre-application advice, see <https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit>.

You must do the following:

- ☒ Complete legibly all parts of the application form that are relevant to you and your activities
- ☒ Identify relevant supporting information in the form and send it with the application
- ☒ List all the documents you are sending in the table below.
- ☒ For new permit applications or any changes to the site plan, provide a plan that meets the standards given in the guidance note on part F1
- ☐ Provide a supporting letter for any claim that information is confidential
- ☒ Get the declaration completed by a relevant person (not an agent)
- ☒ Send the correct fee

6 Application checklist, continued

Continue on an extra sheet if necessary.

Question reference	Document title	Document reference
Part C2, Q2b	Changes or additions to existing activities	Permit Variation Application
Part C2, Q3d	Management systems	Permit Variation Application: Appendix 9
Part C2, Q4	Environmental risk assessment	Permit Variation Application: Appendix 14
Part C2, Q5	Site condition report	Permit Variation Application: Appendix 3
Part C2, Q5	Change summary document	Permit Variation Application
Part C2, Q6a	Non-technical summary	Permit Variation Application: Appendix 1
Part C2, Q6b	Updated site plan	Drawing No. DR_0007
Part C3 & B3, Q3a	Technical standards	Permit Variation Application.
Part C3, Q3a1	Operating techniques	Permit Variation Application: Table 5
Part C3 & B3, Table 4	Dust Managment Plan	Permit Variation Application: Appendix 12
Part C3 & B3, Table 5	Types and amounts of raw materials	Permit Variation Application: Table 4
Part C3 &B3, Q6	Resource efficiency and climate change	Permit Variation Application.

Document reference

7 How to contact us

If you have difficulty filling in this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422549 (Monday to Friday, 8am to 6pm)

Email: [**enquiries@environment-agency.gov.uk**](mailto:enquiries@environment-agency.gov.uk)

Website: [**www.gov.uk/government/organisations/environment-agency**](http://www.gov.uk/government/organisations/environment-agency)

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

8 Where to send your application

For how many copies to send see the guidance note on part F1.

Please send your filled in application form and supporting documents to:

For water discharges and groundwater activities by email to

[**PSC-WaterQuality@environment-agency.gov.uk**](mailto:PSC-WaterQuality@environment-agency.gov.uk)

For waste, installations, medium combustion plant and specified generators by email to

[**PSC@environment-agency.gov.uk**](mailto:PSC@environment-agency.gov.uk)

For large electronic documents (too large for email attachment) you can upload your applications to file sharing sites and send us a link to download the documents. Alternatively, you can send more than one email with documents attached.

Or by post to:

Permitting Support, NPS Sheffield
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

Do you want all information to be sent to you by email?

- ☐ Please tick this box if you wish to have all communication about this application sent via email (we will use the details provided in the Part A form).

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form?

We will use your feedback to improve our forms and guidance notes.

Would you like a reply to your feedback?

☐ Yes please

☐ No thank you

For Environment Agency use only

Date received (DD/MM/YYYY)

Our reference number

Payment received?

☐ No

☐ Yes

Amount received (£)

APPENDIX 3

Site Condition Report

1.0 SITE DETAILS	
Name of the applicant	Fortis IBA Limited
Activity address	A303 IBA Facility, A303 Enviropark, Drayton Road, Barton Stacey, Andover, Hampshire, SO21 3QS.
National grid reference	The existing Site is centred at National Grid Reference (NGR) SU 44211 42978 and the proposed western extension area is centred at NGR SU 43955 42832.
Document reference and dates for Site Condition Report at permit application and surrender	EPR variation application (EPR/FB3805GN), PDE Consulting Limited, January 2021. Site Condition Report (SCR) for Incinerator Bottom Ash Aggregate (IBAA) storage area (western extension) to be added to the permit boundary.
Document references for site plans (including location and boundaries)	Drawing reference: FOR/EPB/01.

2.0 Condition of the land at permit issue	
Environmental setting including: • geology • hydrogeology • surface waters	<u>Geology</u> Top soil. The superficial geology comprises head deposits to a maximum depth of 1.7mbgl. The solid geology comprises the Seaford Chalk Formation. A site investigation was undertaken by Aecom in April 2018 in the western extension which comprised the excavation of fifteen trial pits (maximum depth of 3.2mbgl) and two boreholes (maximum depth of 15.3mbgl). Logs for two boreholes (BH1 and BH2) are presented in Annex 1 alongside a borehole location plan. <u>Hydrogeology</u> The Chalk is a principal aquifer. The site is not located within a groundwater source

	protection zone. <u>Surface waters</u> There are two surface water management lagoons within the site boundary: one located in the south west corner of the main site and one in the south east corner of the western extension. The water in the lagoons is used in the dust suppression system. The River Dever and River Test are located approximately 800m south and 1.1km north-west respectively. At its closest point, the River Test Site of Special Scientist Interest (SSSI) is located approximately 900m south of the Site. The site is located in Flood Zone 1 (lowest risk).
Pollution history including: • pollution incidents that may have affected land • historical land-uses and associated contaminants • any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures	The site comprises an undeveloped green field with some areas of tree coverage on the northern and western sides of the land. A Groundsure report dated March 2018 shows no records of pollution incidences on the site. There are no pollution prevention measures installed. According to the historical maps (from the Groundsure report) in Annex 2 there is no history of development on the Site.
Baseline soil and groundwater reference data	Refer to Geo-environmental and Geotechnical Ground Conditions Report. Aecom, May 2018. During the site investigation in April 2018, a total of twenty soil samples were analysed to provide a comprehensive baseline data for future redevelopment (total petroleum hydrocarbons, polycyclic aromatic hydrocarbons, volatile organic compounds, semi volatile organic compounds, polychlorinated biphenyls, heavy metals asbestos, pesticides and nitrate). Based on the results of the human health risk assessment undertaken on soil samples obtained from the AECOM SI and available

	historic investigations, it was concluded that there is unlikely to be an unacceptable risk to human health for current and future site users (based on an industrial/commercial land use screening criteria). Several compounds were detected exceeding the identified controlled waters Generic Assessment Criteria (GAC) protective of the chalk aquifer. Exceedances were generally detected in the shallow natural ground, with deeper samples typically reporting concentrations below the laboratory method limit of detection.
--	--

3.0 Permitted activities	
Permitted activities	Treatment of IBA and storage of IBA and incinerator bottom ash aggregate (IBAA) in the currently permitted area. The storage of IBAA only in the proposed western extension.
Non-permitted activities undertaken	None.
Document references for: • plan showing activity layout; and • environmental risk assessment.	Drawing reference: FOR/EPB/01. Refer to Environmental Risk Assessment (January 2021, PDE Consulting Limited) produced for the permit variation application.

4.0 Changes to the activity	
Have there been any changes to the activity boundary?	Yes, proposed eastern extension area, shown on Environmental Permit Boundary and Site Layout Plan, Drawing No. DR-0007 dated 21/07/2025. The eastern extension area is an undeveloped field. A Soil Resources Survey (Tim O'Hare Associates LLP, January 2025) was conducted, in the proposed extension area to the permit, to inform the planning application. The soils were examined by constructing a total of 5 No. hand-dug trial holes and 6 No. mechanically-dug trial holes (by excavator) at representative locations within the survey area. The hand-dug trial holes were dug to the depth of the chalk horizon, and the machine-dug holes were excavated to depths exceeding 1000mm. The soil profile across the site was reasonably consistent, and generally comprised a clay loam topsoil over a thin silty clay to clay subsoil, over chalk.
Have there been any changes to the permitted activities?	The proposals include the deconstruction and removal of the existing IBA processing plant and the construction of a new, replacement plant (replant), within the current permit boundary. The replant is an upgrade to the existing IBA processing plant and will process the imported IBA to produce (IBAA and screened metals. The replant process operation is similar to the existing plant; however technological advances have been integrated to improve energy efficiency and metals recovery which in turn will improve the quality of the IBAA. The replant will be enclosed within a steel-clad building. In addition, a new enhanced IBA recovery facility is to be installed at the Site, which will be located within a fully enclosed building, outside of the current permit boundary. The enhanced IBA recovery facility will further refine the non-ferrous fraction produced

	from the replant; as well as imported non-ferrous metals from the other Fortis sites. The plant shall be comprised of a material receipt, storage area and dry and wet separation plants. Recovered IBA residue will be returned to the adjacent IBA recycling plant for use in the IBAA. The recovered metals from the enhanced IBA recovery facility (dry and wet separation plants) are then either ready for export and onward recycling; or will pass over an additional eddy current separator to improve the recovery of aluminium. The enhanced IBA recovery facility will be fitted with appropriate dust management systems, including a Local Exhaust Ventilation (LEV) system.
--	---

Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	Superfloc C577 is a cationic flocculant which will be stored and used in the wet processing plant in the enhanced IBA recovery facility to enhance solid / liquid separation. It is an aqueous solution of synthetic polyamine which has hazardous properties- namely being harmful to aquatic life with long lasting effects. It is delivered in IBCs as a liquid and is diluted significantly upon make up and through the rate of addition to the water treatment system. It is estimated that < 0.5% would be used in the water treatment system.
---	--

Checklist of supporting information	• Plan showing any changes to the boundary (where relevant) - Environmental Permit Boundary and Site Layout Plan, Drawing No. DR-0007 dated 21/07/2025. • Description of the changes to the permitted activities (where relevant) – Refer to permit variation application produced by PDE Consulting in September 2025. • List of 'dangerous substances' used /produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant) – see above.
--	---

EC Guidance: Stage 1 – 3 Assessment

In accordance with European Commission Guidance concerning baseline reports under Article 22(2) of the IED, a Stage 1 – 3 assessment has been undertaken to identify hazardous substances used at the Facility.

Stages 1 to 3 of the assessment are described as follows:

1. Produce a list of all hazardous substances dealt with inside the installation boundary (either as raw materials, products, intermediaries, by-products, emissions or wastes).
2. From the list produced in Stage 1, determine the potential pollution risk of each hazardous substance by considering its chemical and physical properties such as: composition, physical state (solid, liquid, and gas), solubility, toxicity, mobility, persistence, etc. This information should be used to determine whether or not the substance has the potential to cause pollution of soil and groundwater.
3. Each substance brought forward from Stage 2 should be considered in the context of the site to determine whether circumstances exist which may result in the release of the substance in sufficient quantities to represent a pollution risk, either as a result of a single emission or as a result of accumulation from multiple emissions.

The Stage 1 – 3 assessment of the materials handled at the Facility is presented in Table 1. The substances handled at the Facility are identified in the context of their hazards and theoretical pollution risk, with justification as to whether the substance is of concern or not in the context of the Site.

Table 1: Stage 1 - 3 Assessment of Materials at the Facility.

Stage 1: Hazardous Substances	Stage 2: Chemical Characteristics	Stage 3: Site specific characteristics	Stage 4: Site Specific Risk.	Potential Pollution Risk?
Cationic Flocculant - Superfloc C-577 used as a raw material in the wet processing plant in the enhanced IBA recovery facility.	Raw material imported in liquid format. Refer to MSDS in Appendix 15 of the permit application.	Maximum quantity to be stored will be 2 tonnes at any one time. Maximum annual throughput will be 6 tonnes. To be stored in IBC's inside the wet processing plant on portable bunds. To be used in the wet processing plant in accordance with the manufacturers recommendations only.	The site has an impermeable surface and a sealed drainage system. The material will be appropriately stored in small quantities in a sealed building. Appropriate storage will ensure there is no pathway to the underlying soil or groundwater.	No

Annex 1: Borehole Logs

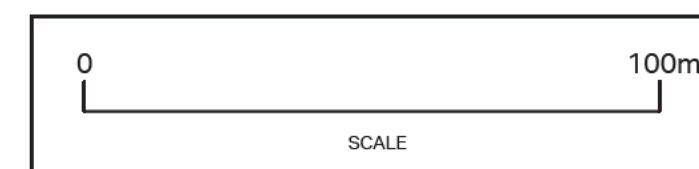


NOTES

Key:

- Site Boundary
- Trial Pit Location
- TP9
- Borehole Location
- BH01

- | | |
|---------------|---------------------------|
| BANKS | FRENCH DRAIN |
| BUILDING | POST |
| CONTOURS | ELECTRICITY POLE |
| FENCE | TELEGRAPH POLE |
| KERB | OVERHEAD TELECOM WIRE |
| ROAD - MADE | OVERHEAD ELECTRICITY WIRE |
| ROAD - UNMADE | TREE |
| GATE | TREE CANOPY BOUNDARY |
| ROAD SIGN | VEGETATION EDGE |
| BOLLARD | TREE CANOPY COVERAGE |
| FIRE HYDRANT | VEGETATION COVERAGE |



CONSULTING ENGINEERS

AECOM

AECOM Infrastructure & Environment UK LTD
St George's House, 3rd Floor
5 St George's Road, Wimbledon, London SW19 4DR
Tel :020 7963 9800 Fax: 020 7963 9801

CLIENT
WHEELABRATOR TECHNOLOGIES

PROJECT
Barton Stacey EFW

DRAWING TITLE
Figure 2
Site Features Plan

DRAWN OK	CHECKED	APPROVED GB	DATE APR 2018
SCALE As Shown	DRG No. 60568515	REV.	

S:\N\AGS4_AECOM\RODETAIL File: C:\USERS\GLEH\DESKTOP\BID\BARTON STACEY\60568515_BOREHOLE LOGS GRN.GPJ Printed: 11/05/2018 10:46:37

Client: Wheelbrator Technologies.

Project: Barton Stacey EfW A303 Drayton Road, Barton Stacey. SO21 3QS

Contract No: 60568515

AECOM

Record of Rotary Borehole BH01

Coring Details				Samples & Tests		Strata							
TCR%	SCR%	RQD%	Fracture Index	Core Run (m)	Depth	Type/No.	Test Results	Water Level	Reduced Level m(AOD)	Depth (Thickness)	DESCRIPTION	Legend	Remarks (joints, partings, seams, zones, etc. Drilling time, water loss, depth of weathering, etc., if significant)
6	0	0				B/20	(6,7/8,10,10,10)			51	(2.90)		Core loss. <i>Stratum text copied from layer at 53.3mAOD from previous sheet.</i>
				11.40	11.40	SPT/21	N = 50/200mm (8,11/20,20,10)		50.40	11.30			
87	15	0			12.21	CS/30				50	(1.30)		
				12.90	12.90	SPT/24	N = 50/25mm (25/50)		49.00	12.70			
10	0	0								49			
					14.40	SPT/26	N = 50/15mm (25/50)			48	(2.40)		
5	0	0			15.00	SPT/27	N = 50/150mm (9,6/8,42)		47				
				15.30	15.30				46.40	15.30			
End of Borehole at 15.30m													

GENERAL REMARKS

1. Hand dug inspection pit from 0.00 to 1.20m.
2. Drilling method 1.2m - 7.00m: Dynamic sampling with SPTs.
3. Drilling method 7.00 - 15.33m: Rotary coring with SPTs.
4. Borehole backfilled with bentonite and chalk cuttings on completion.
5. Coordinates collected with handheld GPS accurate to +/- 5m.
6. Elevation from site survey plan.
7. Backfilled with chalk cuttings and bentonite
Exploratory hole logs should be read in conjunction with corresponding Key Sheets.

Boring Progress and Water Observations

Date	Time	Hole Depth	Standing Level	Strike	Rise	Time (mins)	Sealed
05/04/18	18:00	15.30					

Rotary Flush

From	To	Type	Return (%)

Logged by: M. Blakely
Checked by: GH 11/5/18
Status: FINAL

Equipment: Comacchio GEO 205
Contractor: Endeavour Drilling Ltd

Co-ordinates: NGR E: 443929.00m
NGR N: 142816.00m

Ground Level: OS Level: 61.70mAOD

Date: Start: 03/04/2018
End: 06/04/2018

 Sheet 2 of 2

Style: AGS4_AECOM_RCDDETAIL File: CHUSERS\GLENHUGHES\BARTON STACEY\160568515_BORING\LOGS\GEOLOGICAL Print: 11/05/2018 10:48:39

Client: Wheelbrator Technologies.										AECOM											
Project: Barton Stacey EfW A303 Drayton Road, Barton Stacey. SO21 3QS										Record of Rotary Borehole BH02											
Contract No: 60568515																					
Coring Details				Samples & Tests		Strata															
TOR%	SCR%	ROD%	Fracture Index	Core Run (m)	Depth	Type/No.	Test Results	Water Level	Reduced Level m(AOD)	Depth (Thickness)	DESCRIPTION	Legend	Remarks (joints, partings, seams, zones, etc. Drilling time, water loss, depth of weathering, etc., if significant)	Instru-ment/Backfill							
				0.00						0.20	Firm, dark brown, slightly gravelly, clayey SILT. Gravel is angular, fine to coarse white chalk and flint. (TOPSOIL)	x x x x									
										60	Light creamish brown slightly clayey slightly gravelly sandy SILT with low cobble content. Sand is fine to medium. Gravel is medium, sub-rounded extremely weak to very weak white chalk. Cobbles are angular flint. (HEAD DEPOSITS)	x x x x									
				1.20	1.20	SPT	N = 28 (2,3/8,6,8,6)		59.10	1.50											
100										59	Structureless CHALK composed of white sandy slightly gravelly silt with low cobble content. Sand is fine to coarse. Gravel is fine to coarse angular low to medium density weak chalk. Cobbles are angular low density weak chalk and flint. Grade Dm. (WHITE CHALK SUBGROUP, Seaford Chalk Formation)		1.60-1.68m: Full core diameter flint band 1.80-1.85m: Full core diameter flint band								
				2.00	2.00	SPT	N = 15 (3,3/3,4,4,4)														
100										58											
				3.00	3.00	SPT	N = 6 (3,1/2,1,2,1)														
100										57			3.00-3.07m: Full core diameter flint band								
				4.00	4.00	SPT	N = 16 (2,4/6,4,4,2)														
100										56			4.18-4.26m: Full core diameter flint band 4.43-4.47m: Flint fragments								
				5.00	5.00	SPT	N = 19 (6,8/4,5,5,5)														
100								1 5.40		55			4.80m: Small flint								
				6.00	6.00	SPT	N = 20 (16,7/4,6,5,5)	6.15 3/5/18					5.65-5.70m: Full core diameter flint band								
100										54			6.05m: Small flint								
				7.00	7.00	SPT	N = 20 (3,4/4,5,5,6)	6.80													
100										53											
				8.00	8.00	SPT			52.80	7.80	Medium density weak white CHALK. Fractures are closely spaced, open and infilled with silt sized chalk. Grade B3. (WHITE CHALK SUBGROUP, Seaford Chalk Formation)										
0	0	0								52	Core loss.										
				9.00	9.00	SPT	N = 50/120mm (5,45/)		51.60	9.00	Core loss.										
0	0	0								51											
				9.90					50.70	9.90			9.80-9.90m: Full core diameter flint band								
71	20	6								(2.70)											
GENERAL REMARKS										Boring Progress and Water Observations				Rotary Flush							
1. Hand dug inspection pit from 0.00 to 1.20m. 2. Drilling method 1.2m - 8.00m: Dynamic sampling with SPTs. 3. Drilling method 8.00 - 12.60m: Rotary coring with SPTs. 4. 50mm diameter PVC standpipe installed on completion. Solid pipe from ground level to 5.0m depth and slotted pipe in a filter pack between 5.0m and 9.0m. 5. Coordinates collected with handheld GPS accurate to +/- 5m. 6. Elevation estimated from site survey plan. Exploratory hole logs should be read in conjunction with corresponding Key Sheets.										Date	Time	Hole Depth	Standing Level	Strike	Rise	Time (mins)	Sealed	From	To	Type	Return (%)
										06/04/18		8.00	6.15	6.80	5.40	20		8			25
Logged by: G. Hughes Checked by: MB 11/5/18 Status: FINAL										Equipment: Comacchio GEO 205 Contractor: Endeavour Drilling Ltd		Co-ordinates: NGR E: 443940.00m NGR N: 142811.00m		Ground Level: OS Level: 60.60mAOD		Date: Start: 06/04/2018 End: 09/04/2018		AGS Sheet 1 of 2			

Annex 2: Historic Maps

Site Details:

RAYMOND BROWN WASTE
SOLUTIONS, THE A303
RECYCLING FACILITY,
DRAYTON ROAD, BARTON
STACEY, SO21 3QS

Client Ref: Barton_Stacey_-_EfW
Report Ref: GS-4838450
Grid Ref: 443948, 142863

Map Name: County Series

Map date: 1875-1876

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1873
Revised N/A
Edition 1876
Copyright N/A
Levelled 1875

Surveyed 1872
Revised N/A
Edition 1875
Copyright N/A
Levelled 1874

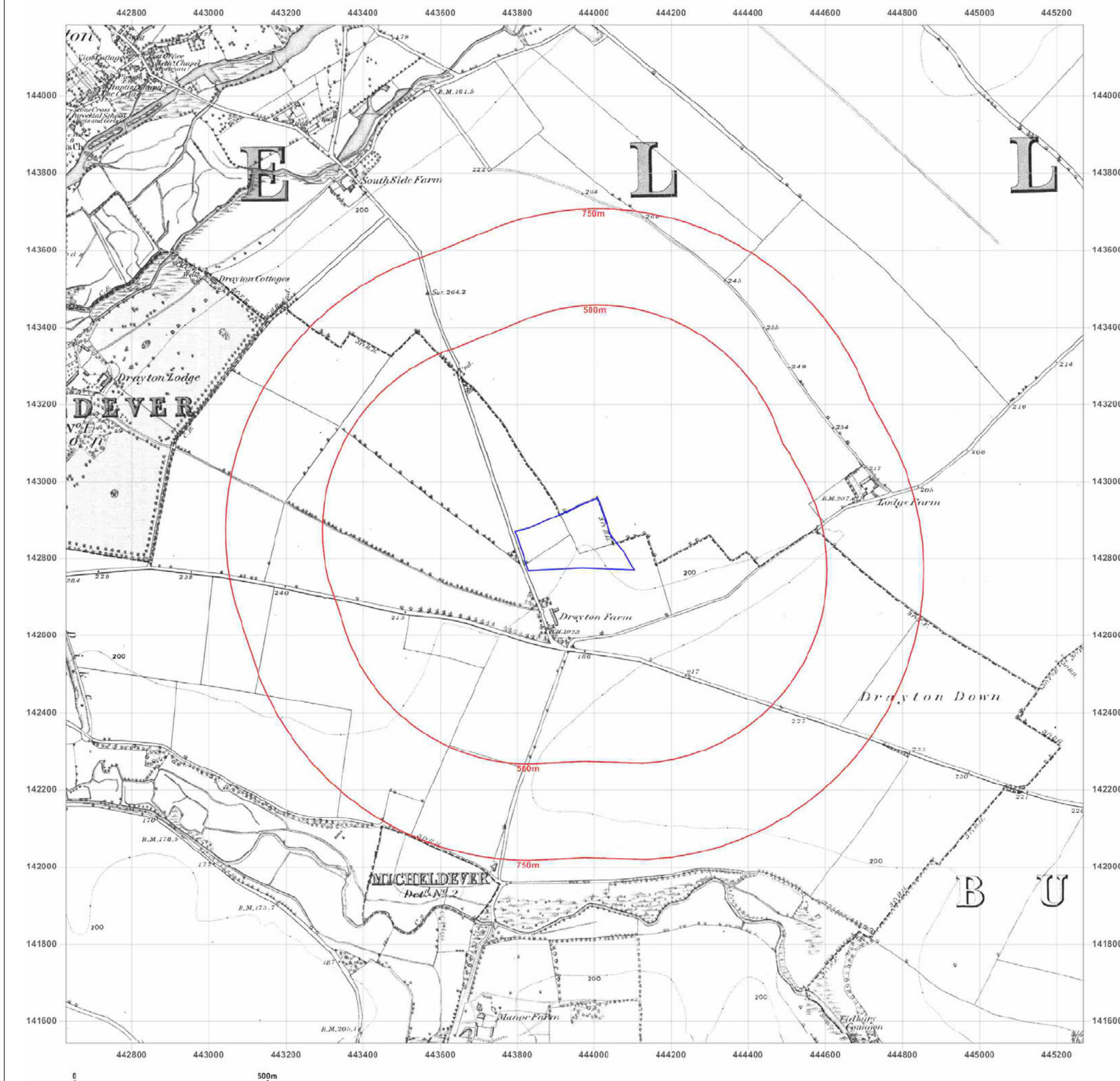


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

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Production date: 26 March 2018

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

RAYMOND BROWN WASTE
SOLUTIONS, THE A303
RECYCLING FACILITY,
DRAYTON ROAD, BARTON
STACEY, SO21 3QS

Client Ref: Barton_Stacey_-_EfW
Report Ref: GS-4838450
Grid Ref: 443948, 142863

Map Name: County Series

Map date: 1894-1897

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1872
Revised 1894
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

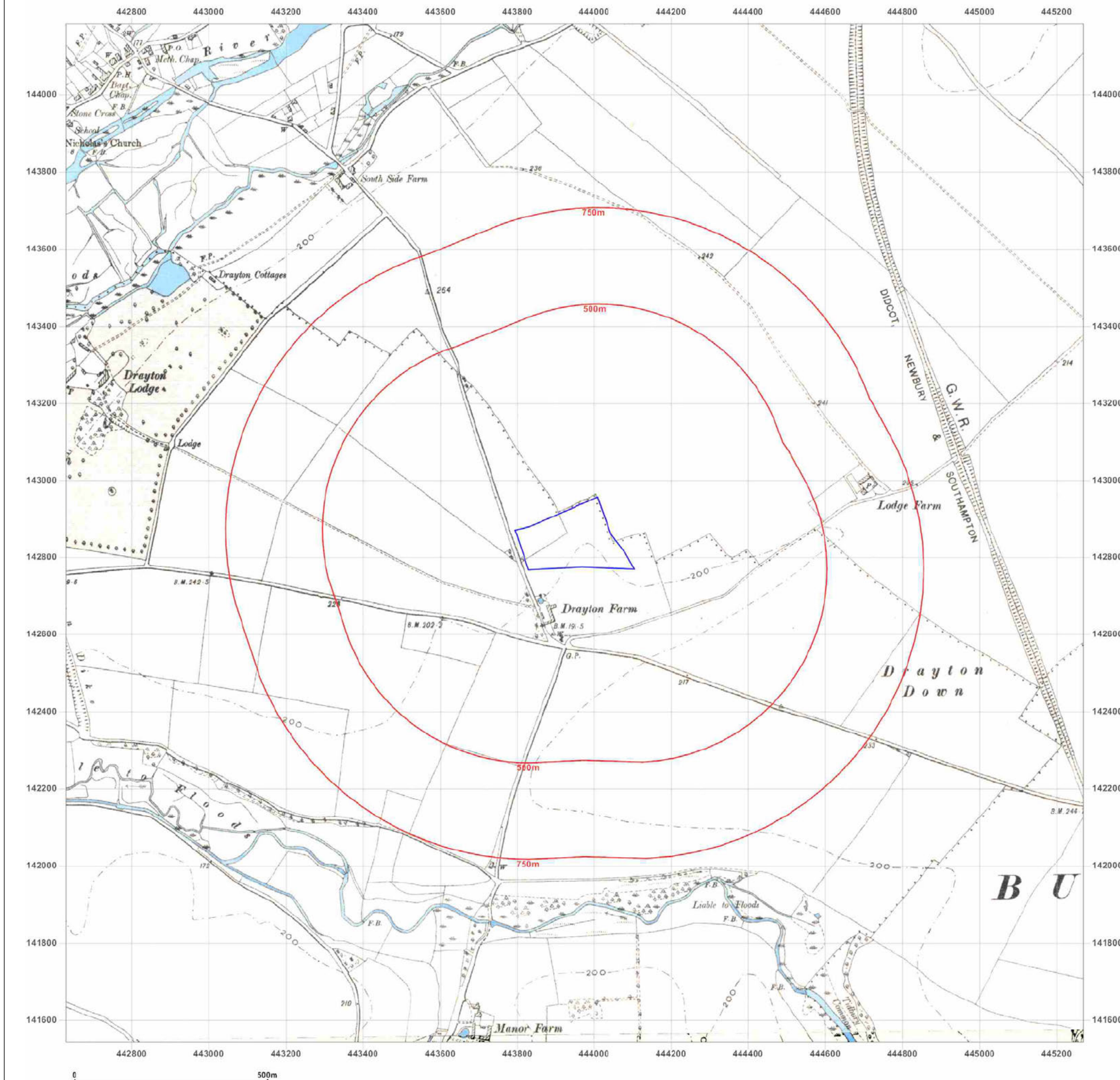


Produced by
Groundsure Insights
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E: info@groundsure.com
W: www.groundsure.com

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Production date: 26 March 2018

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

RAYMOND BROWN WASTE
SOLUTIONS, THE A303
RECYCLING FACILITY,
DRAYTON ROAD, BARTON
STACEY, SO21 3QS

Client Ref: Barton_Stacey_-_EfW
Report Ref: GS-4838450
Grid Ref: 443948, 142863

Map Name: County Series

Map date: 1911

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1871
Revised 1911
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1911
Edition N/A
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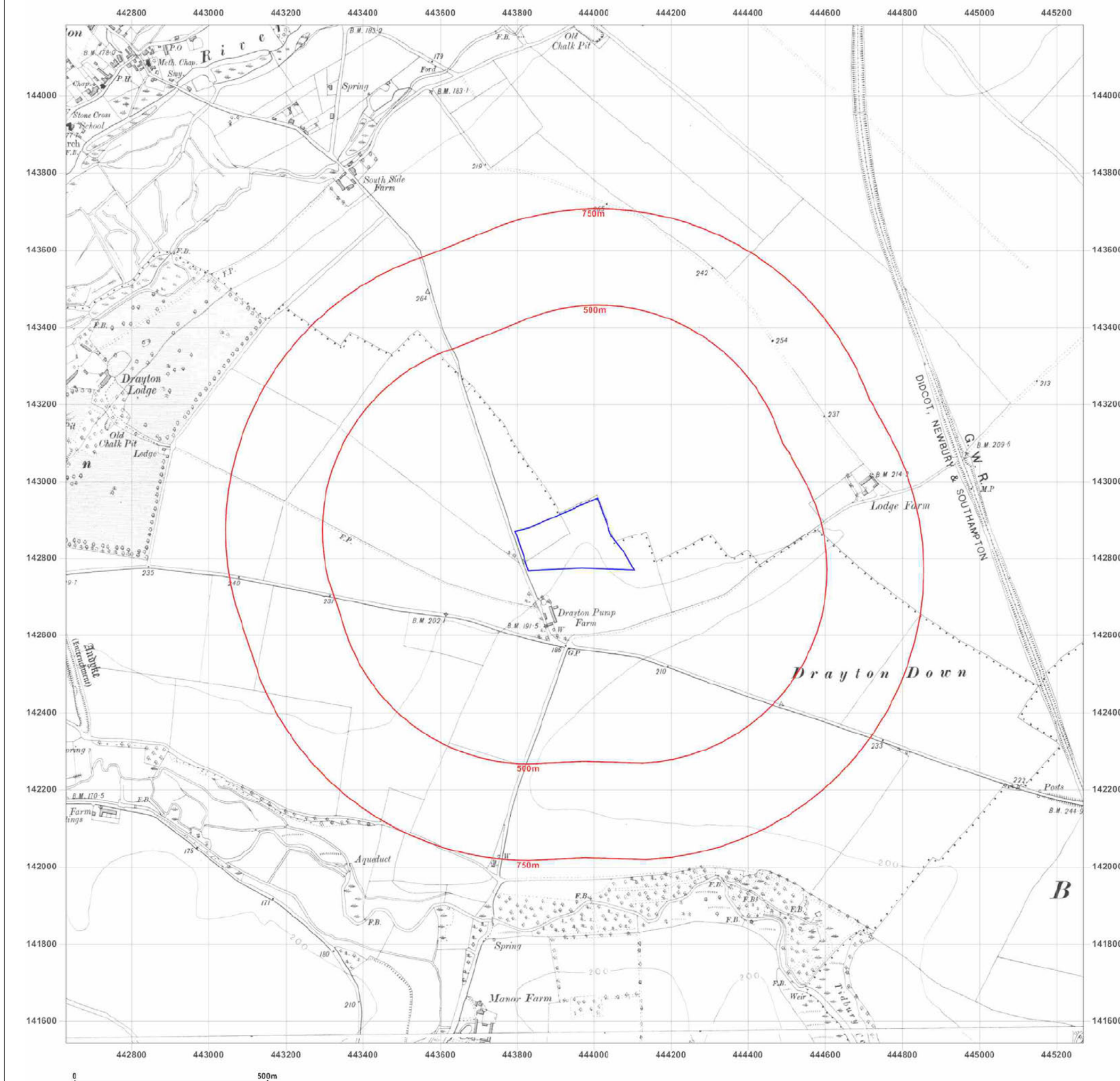


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Grid Ref: 443948, 142863

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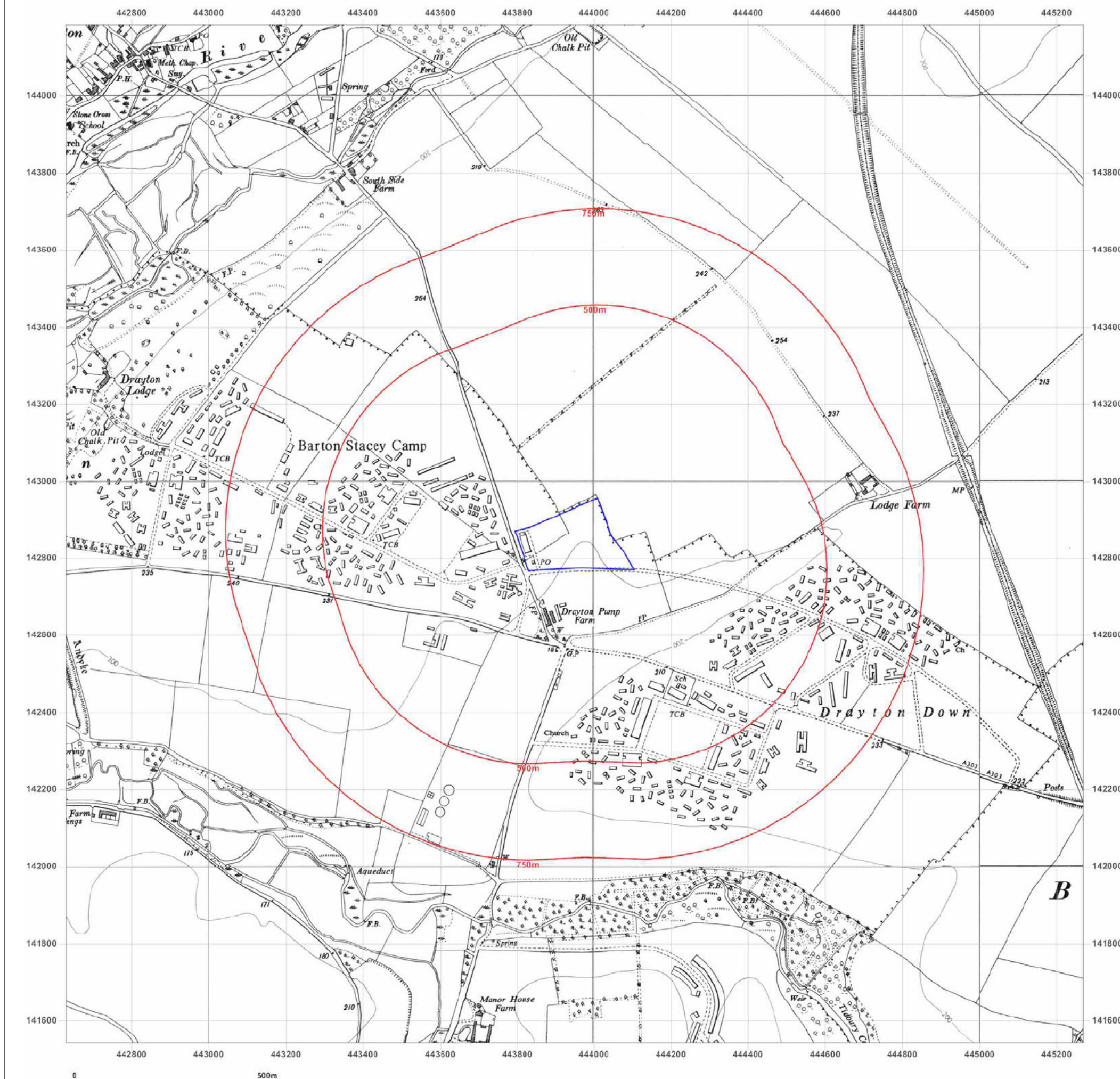


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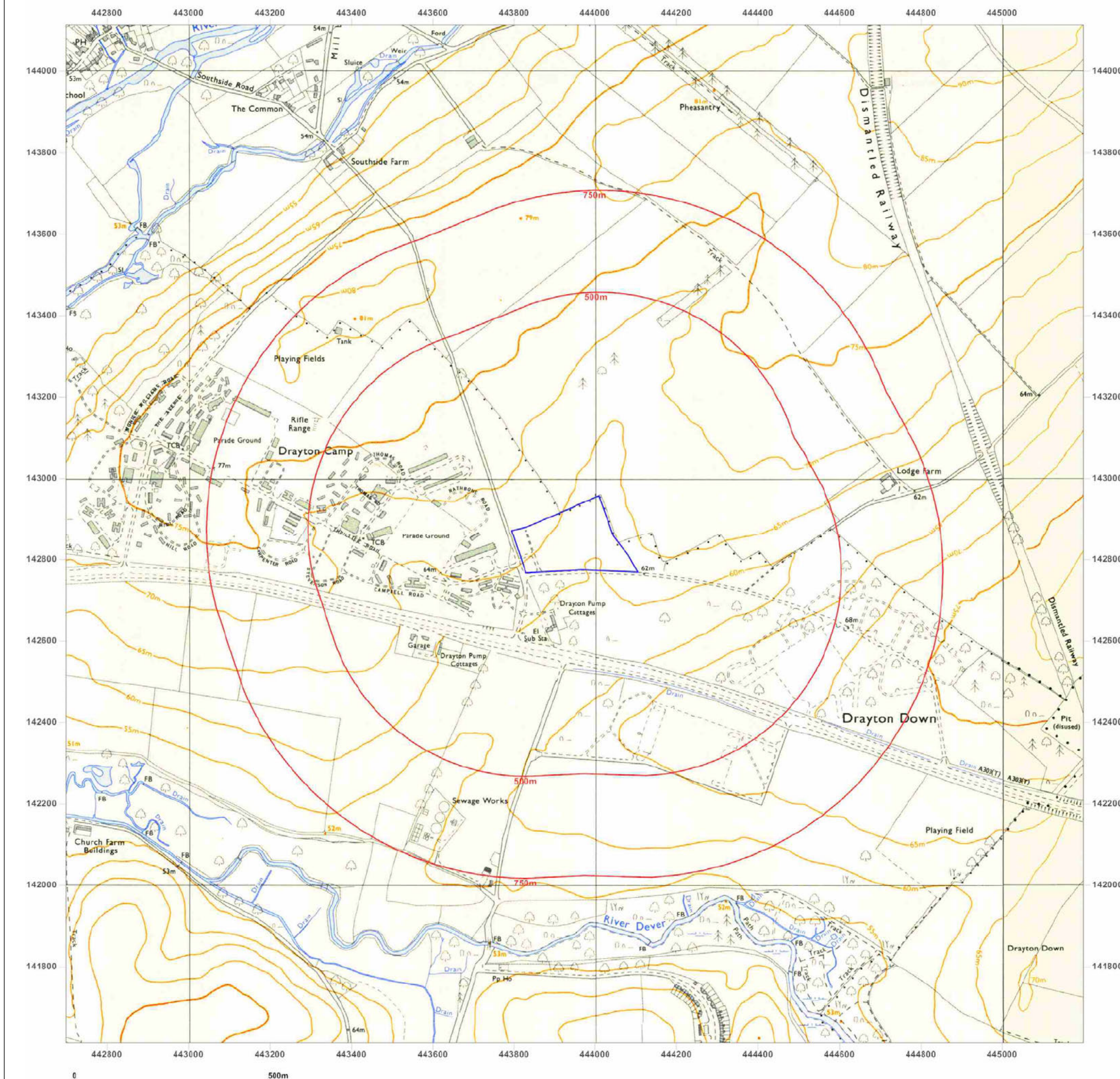


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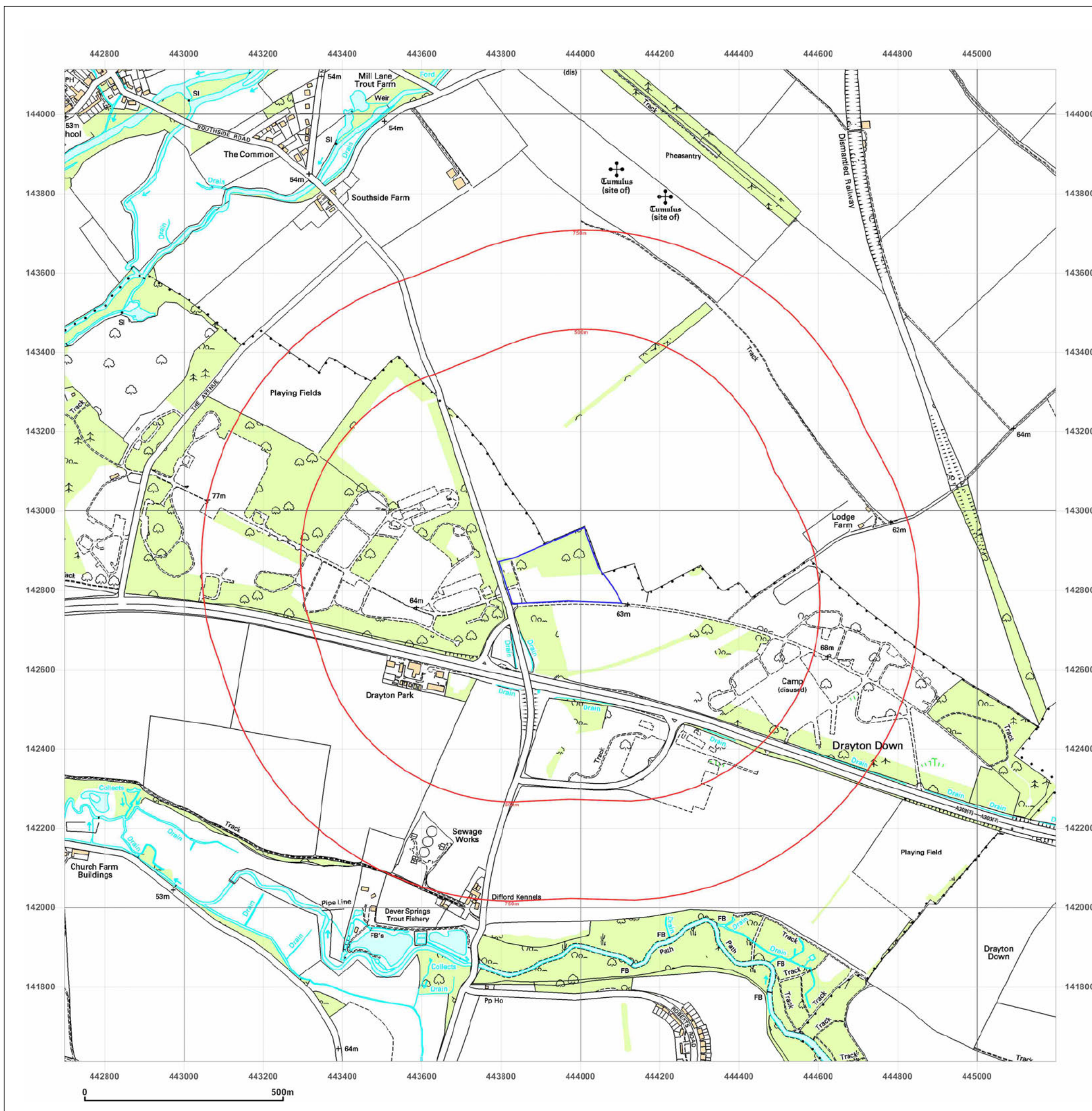


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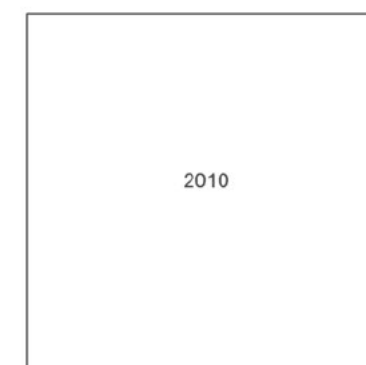
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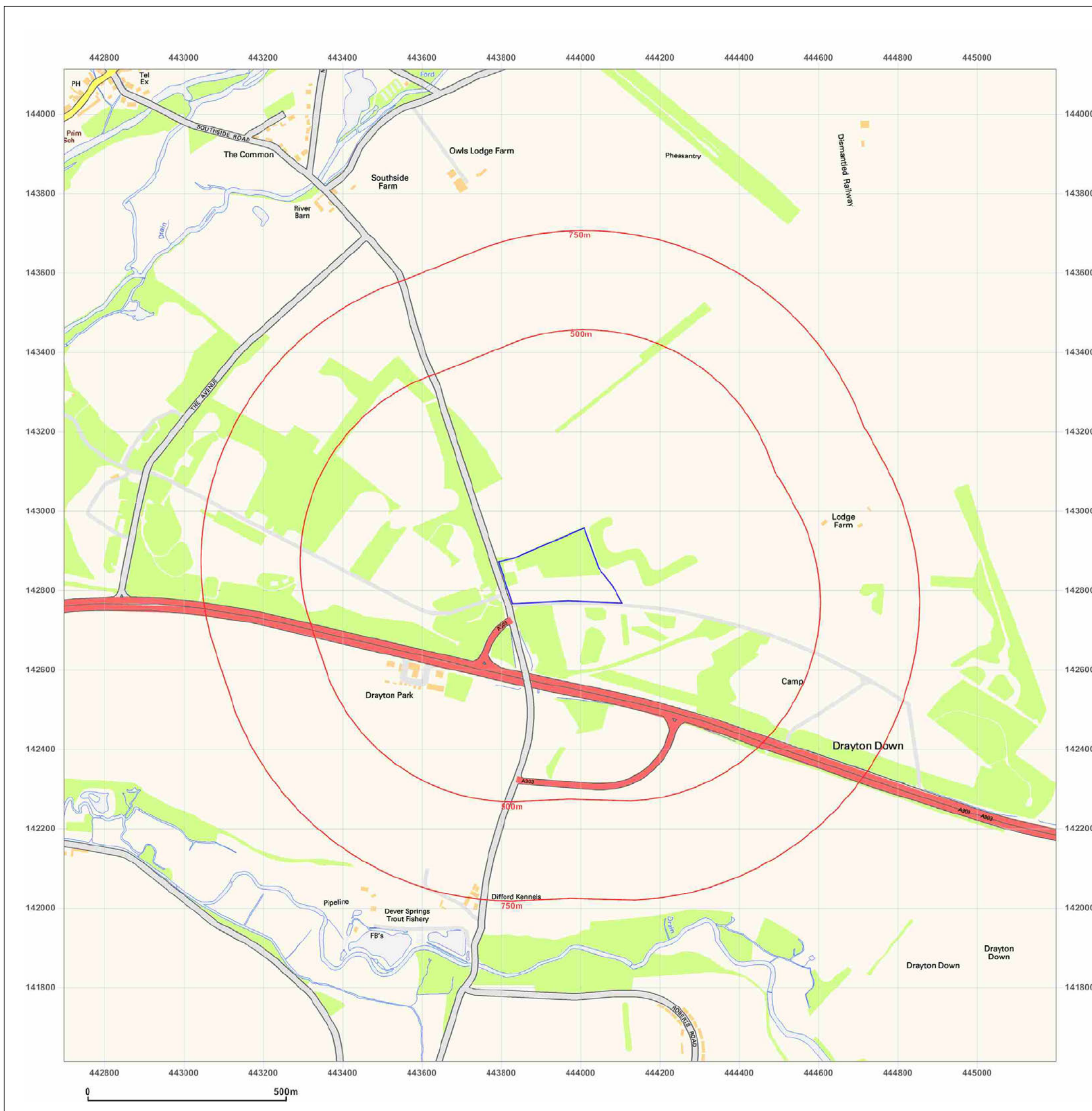


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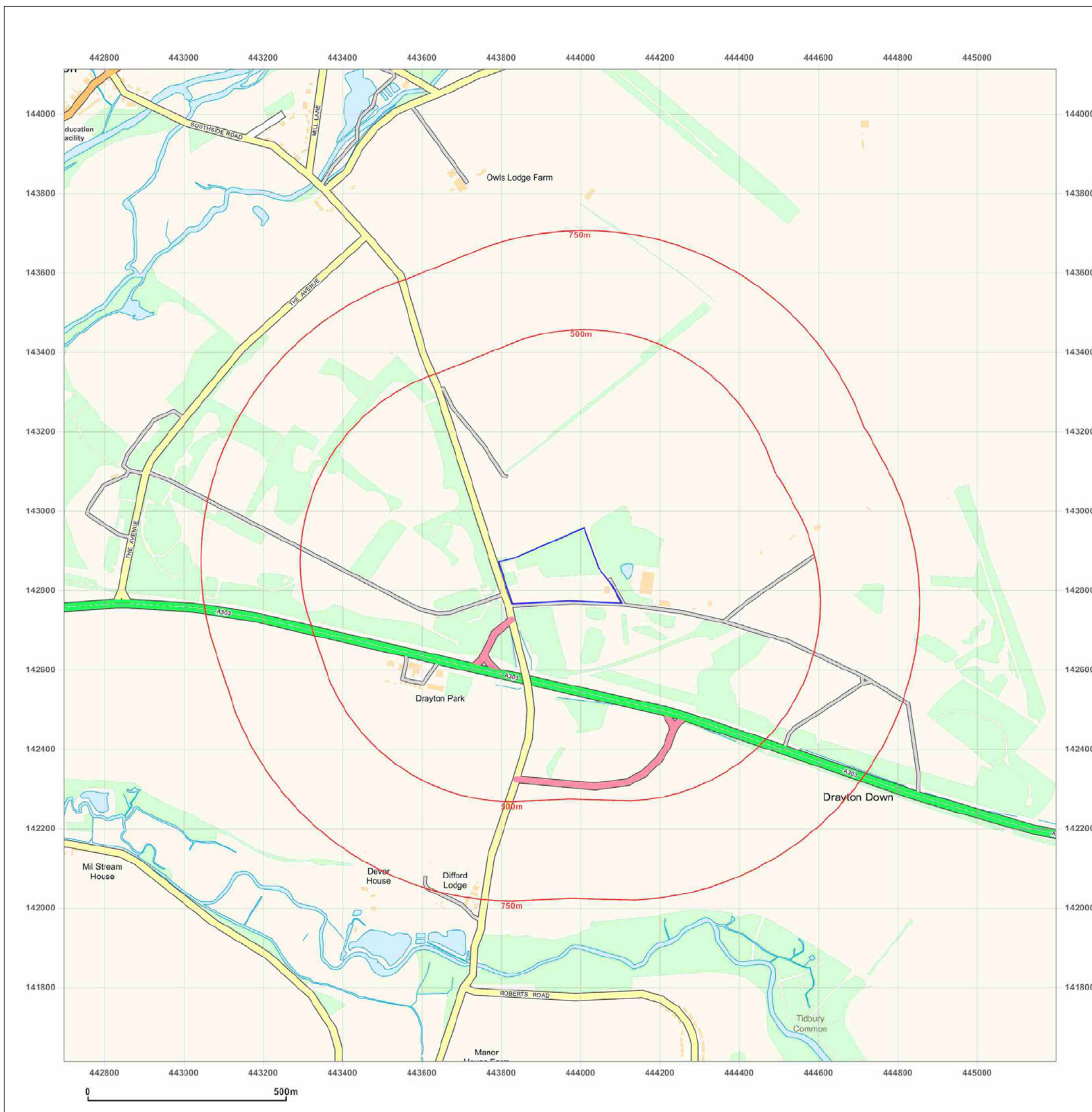


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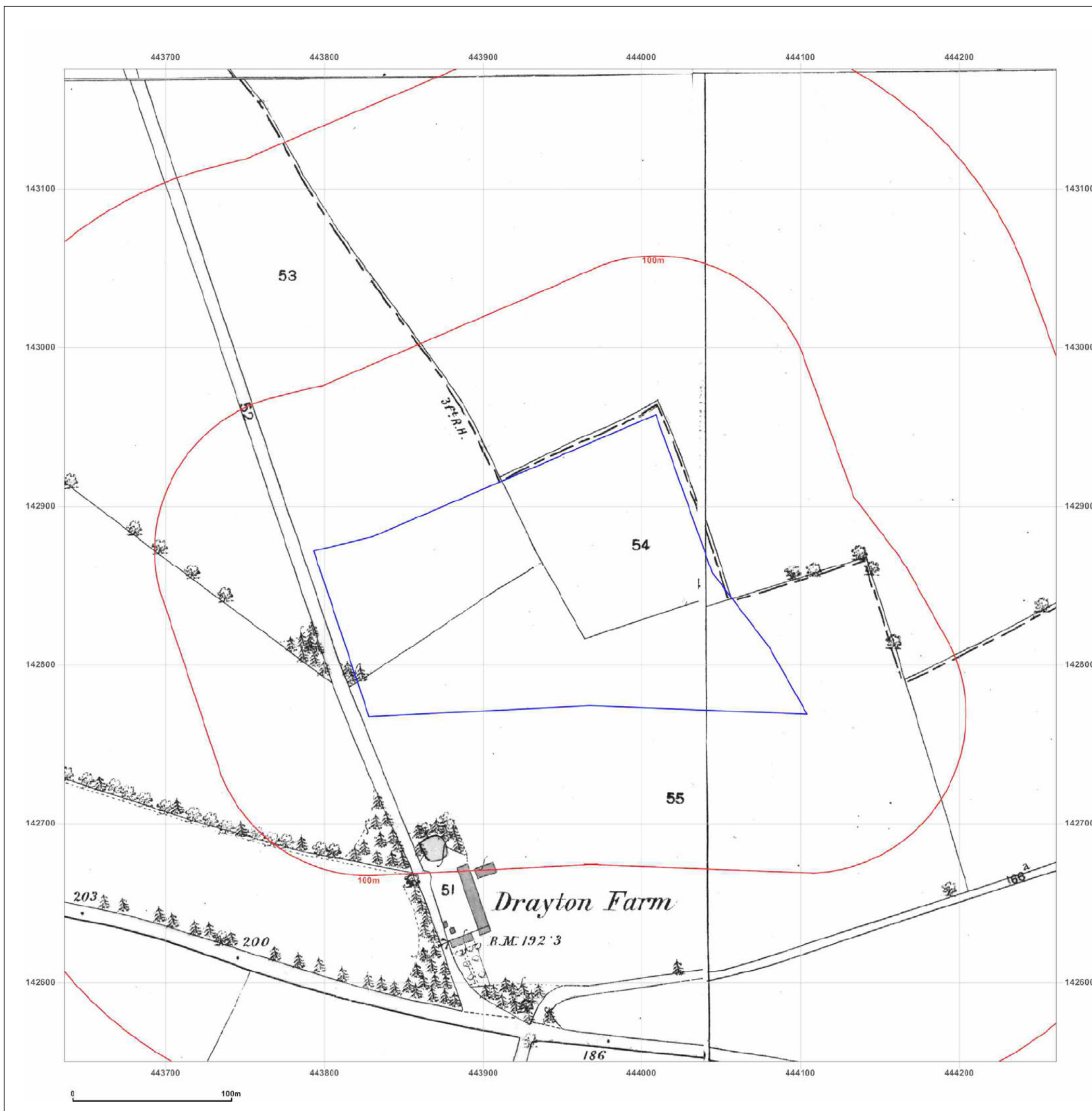


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Map Name: County Series

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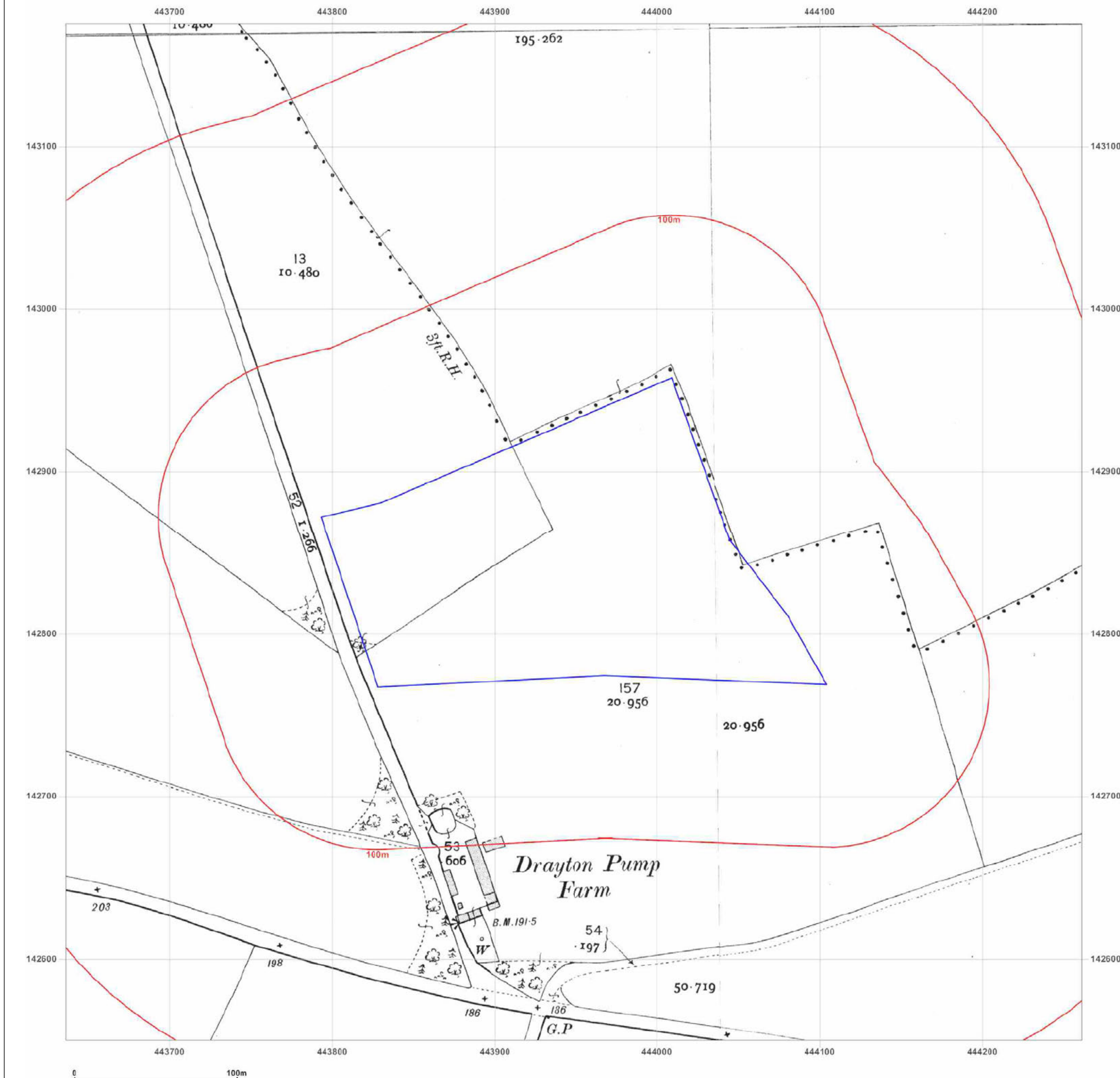


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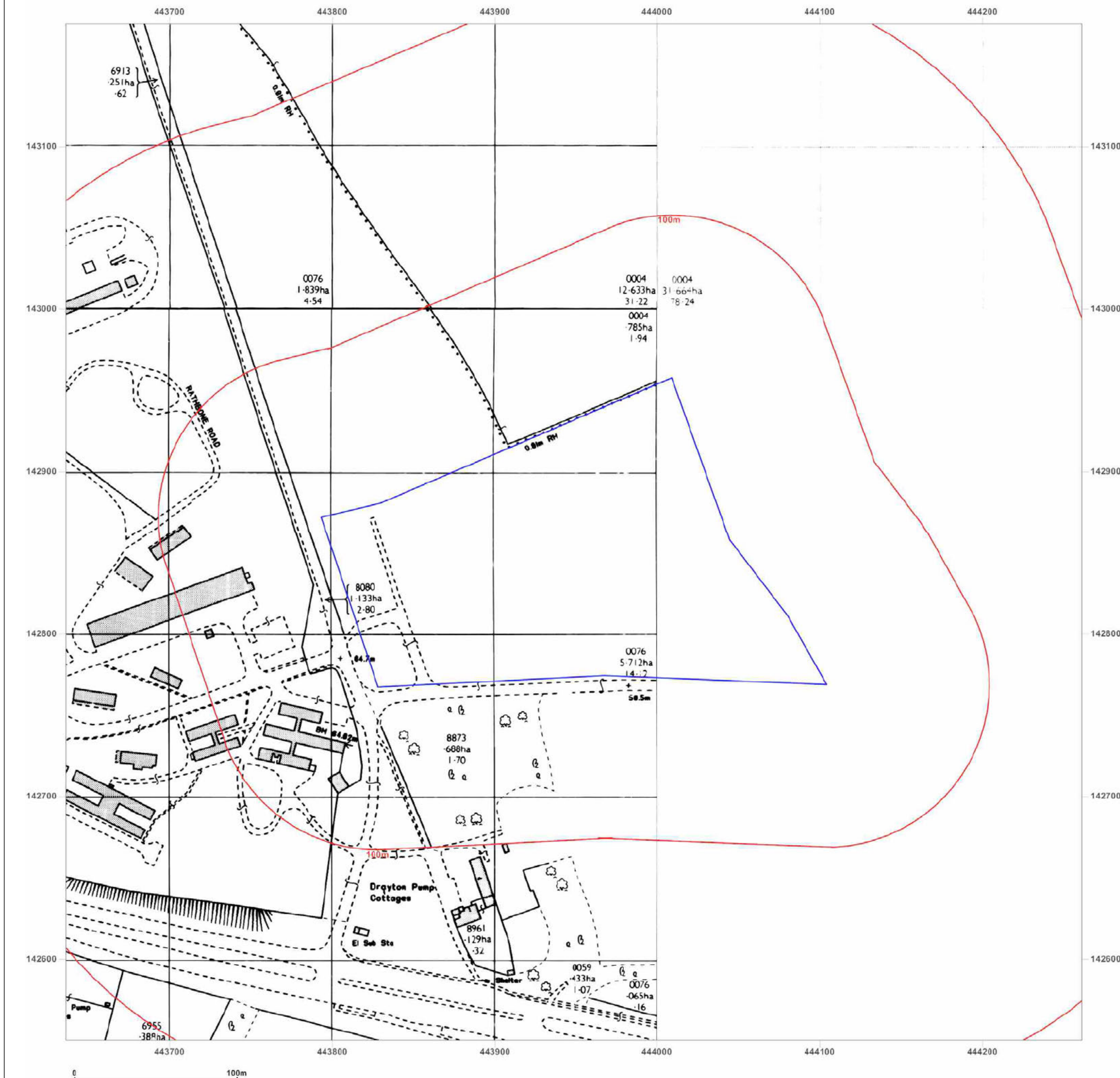


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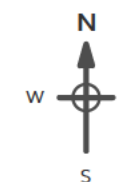
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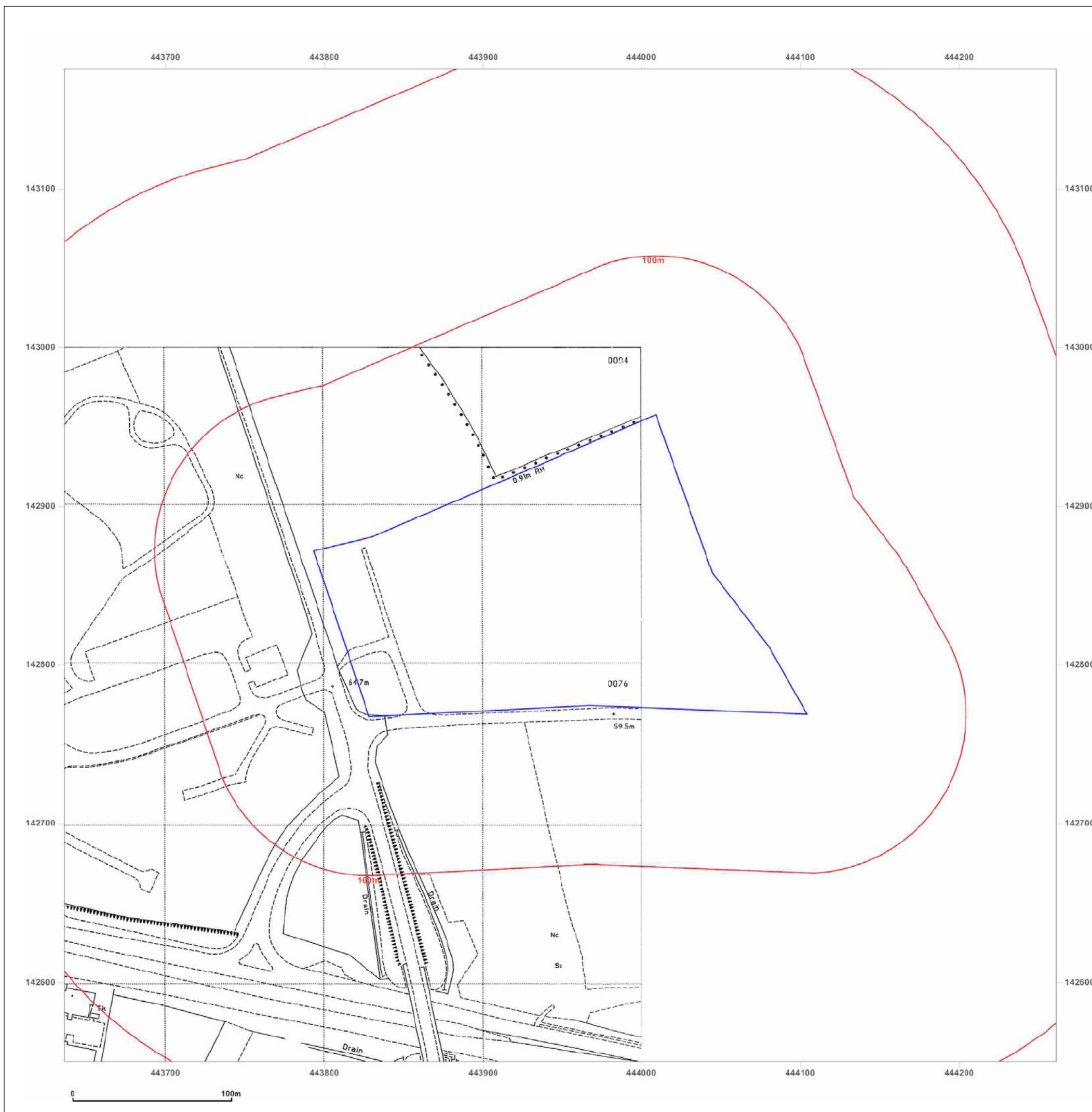


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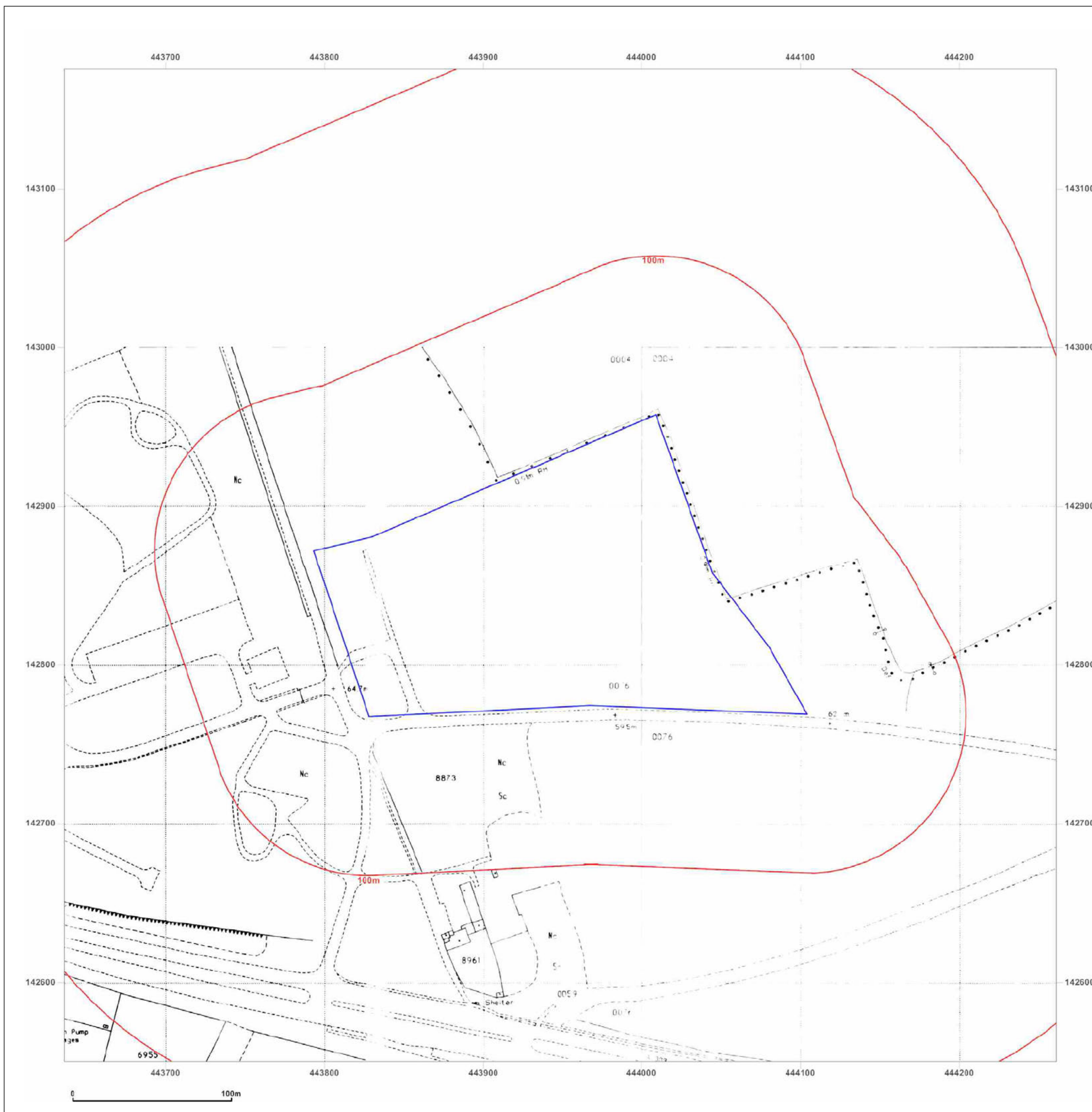


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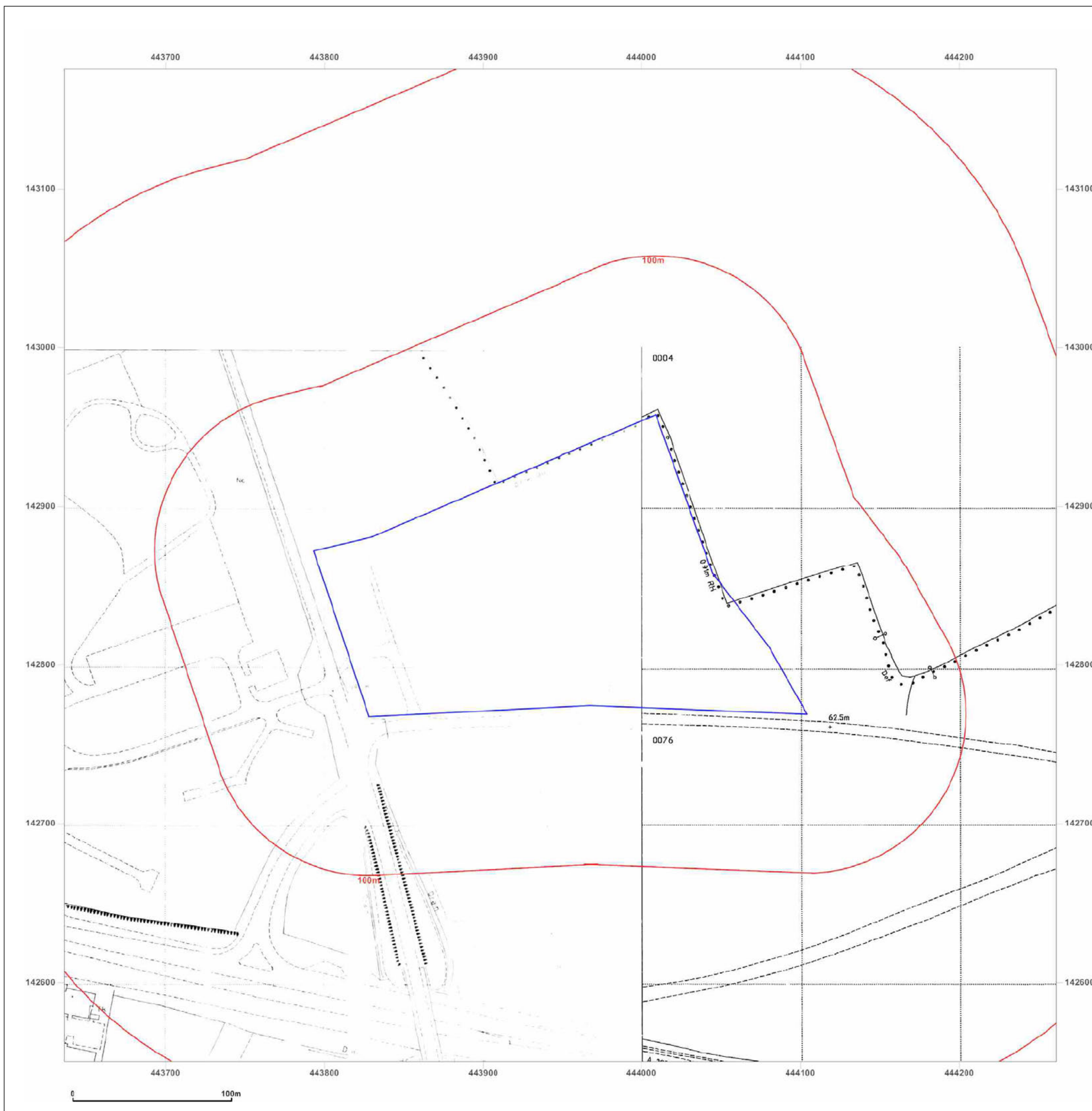


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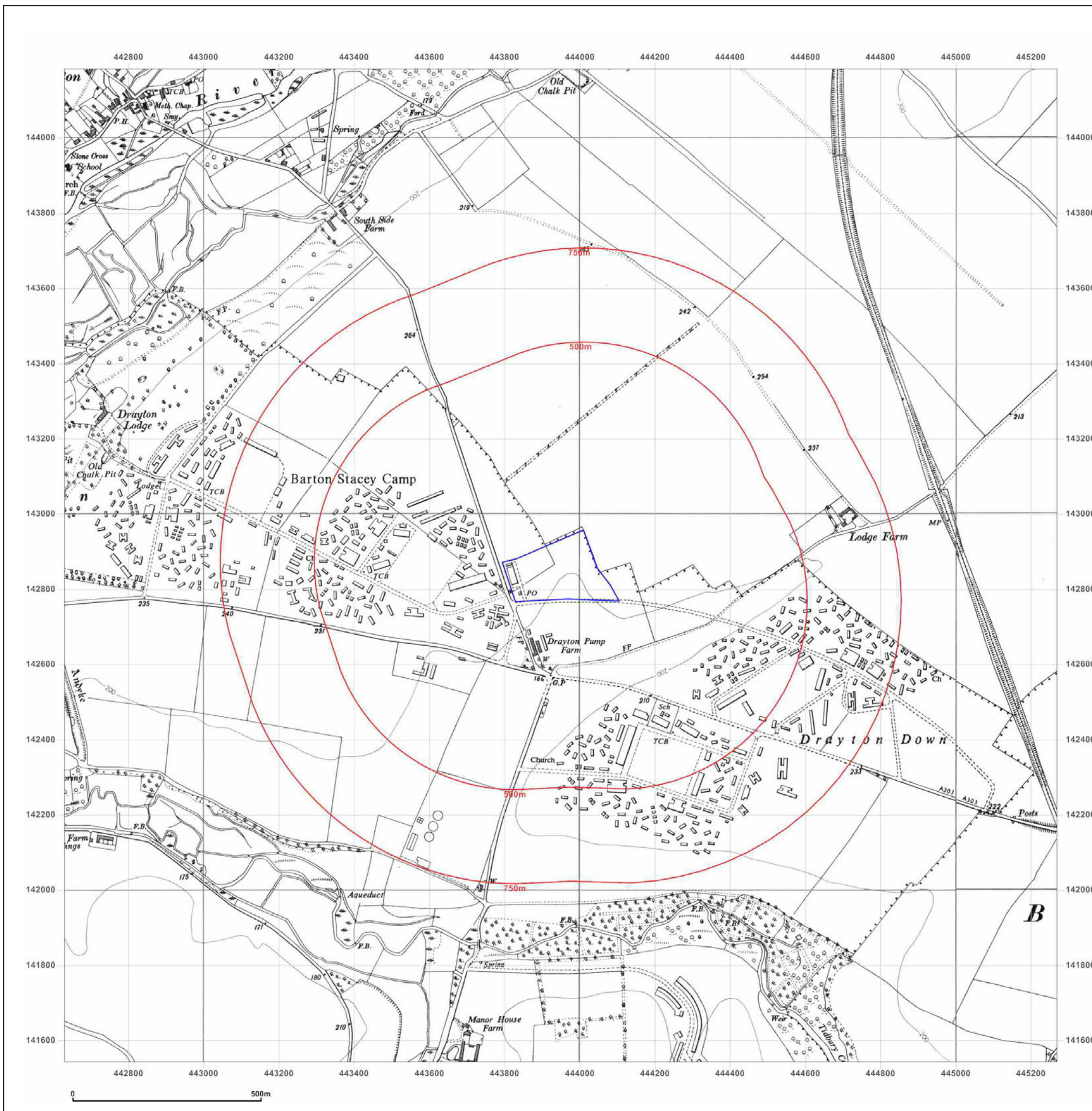


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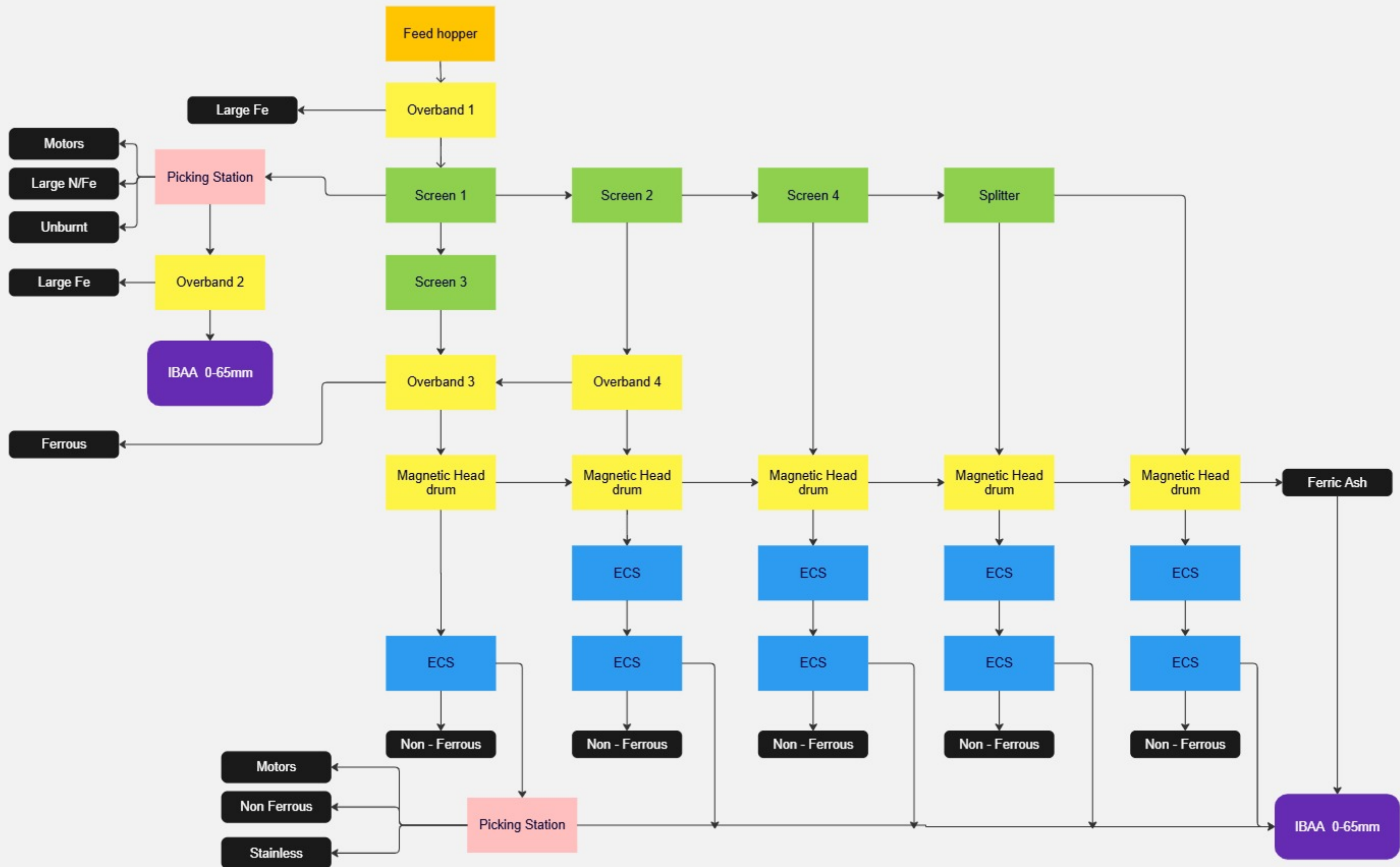
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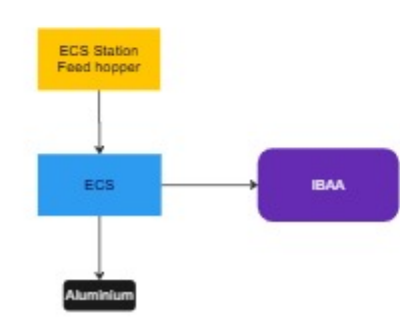
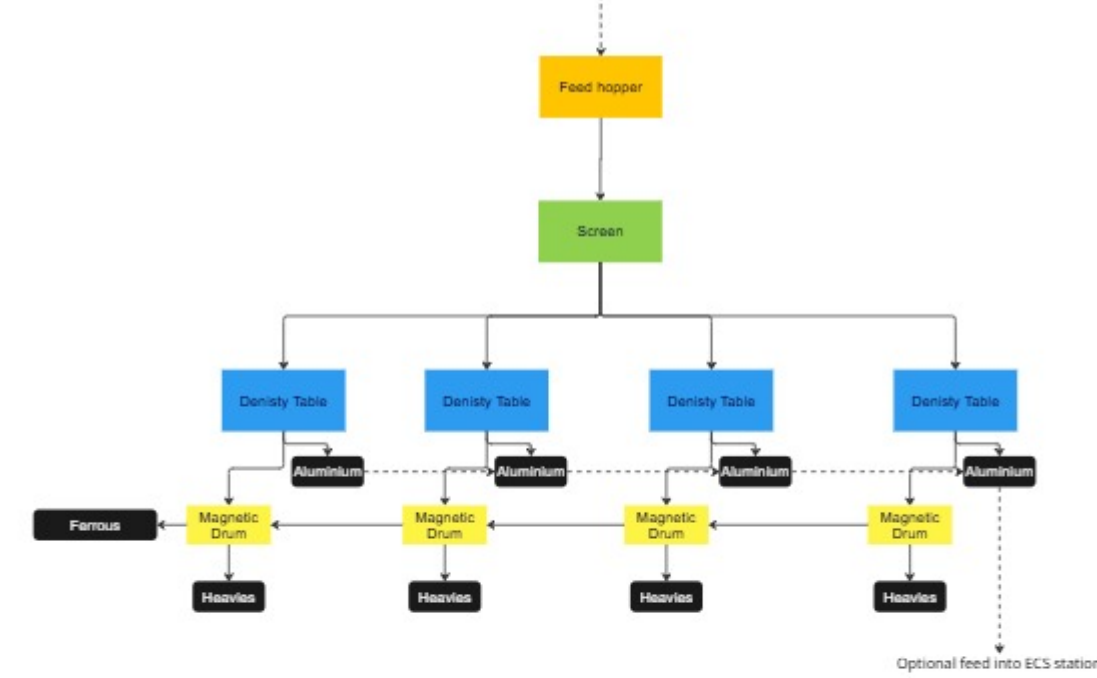
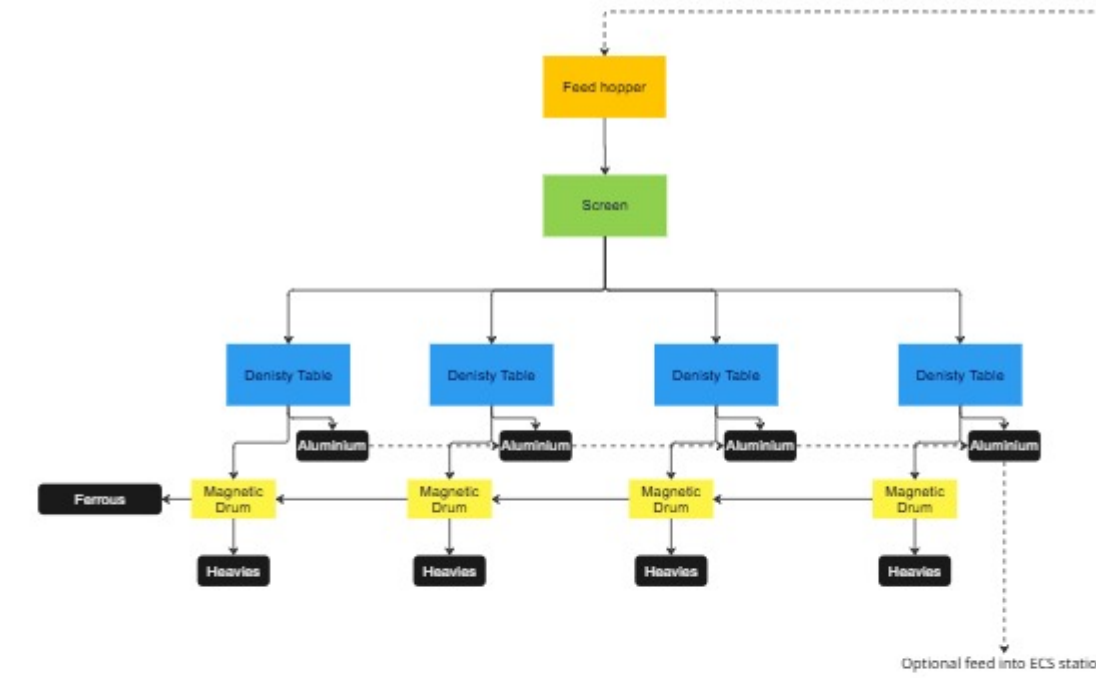
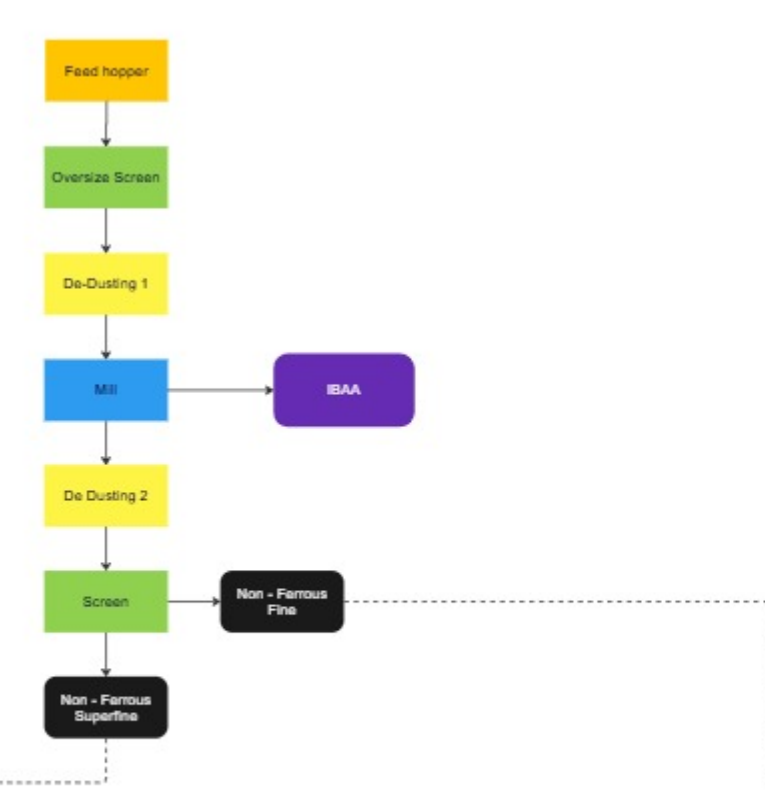
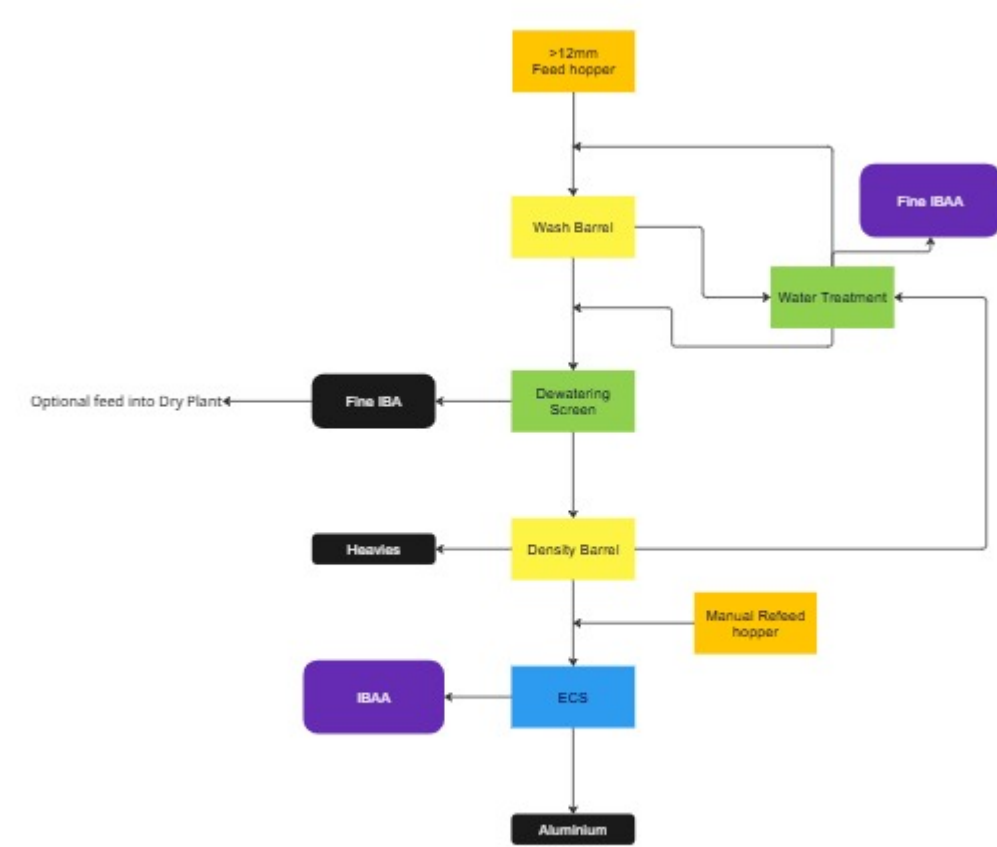
APPENDIX 4

Replant - Process Flow Diagram



APPENDIX 5

Enhanced IBA Recovery Facility - Process Flow Diagram



APPENDIX 6

Stockpile Management Procedure

P11 A303 Stockpile Management Procedure

Stockpile Management Procedure – Version Log

Version No.	Version date	Description
Original (v7)	July 2023	Stockpile management procedure major update
V8	Feb 2024	General Update
V9	March 2024	Draft permit requested update on capacities
V10	July 2025	Update for incorporation of enhanced IBA recovery facility and A303 replant

Overview

- This procedure covers the receipt of Incinerator Bottom Ash (IBA) and Non-Ferrous Metals, the stockpiling of IBA, Non-Ferrous metals and Incinerator bottom ash aggregate (IBAA) and the dispatch of IBA.
- IBA is produced during the incineration of municipal waste at EFW/ERF plants.
- The incinerator operator is responsible for the hazard classification of IBA received following the ESA Protocol which assesses whether the IBA poses a risk to human health or pollution to the environment. The IBA is stockpiled until a report is received to confirm it is non-hazardous.
- Non-hazardous IBA is processed following the Site management plan (SPM), metals are recovered, and the remaining material formed into a manufactured aggregate known as Incinerator Bottom Ash Aggregate (IBAA).
- IBAA may be blended with Limestone to meet highways specifications.
- Orders for IBAA dispatch are processed via the Quarry Minder software which notifies the site teams. Incoming vehicles collecting IBAA present paperwork at the weighbridge which is verified against Quarry Minder.
- Site management ensures the correct IBAA is dispatched, and an advice / transfer note is issued and held by Site Management.

Receipt of materials & Waste acceptance criteria

- Materials accepted at the A303 are as follows:
 - 19 01 12 - Bottom ash and slag other than those mentioned in 19 01 11.
 - 19 12 02 - waste that as ferrous metal and is classed as a Absolute Non-hazardous code, wastes from the mechanical treatment of waste.
 - 19 12 03 - waste that as non-ferrous metal and is classed as Absolute Non-hazardous code, wastes from the mechanical treatment of waste.
 - 19 12 12 - Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11.
- Materials arriving to site provide their conveyancing document to the weighbridge.

- The waste transfer note (conveyancing document) is checked to ensure the parameters in Table 1 are acceptable and if satisfactory, the load is instructed to proceed to the IBA processing facility or the enhanced IBA recovery facility. Loads with unsatisfactory documents must be rejected.

Table 1: Waste Transfer Note Requirement

Required parameters:
Producer Name
Producer address
EWC Code
Product Name
Vehicle Registration Number
Waste Carrier Registration Number
Receiver Name
Receiver Address

- Deliveries for the IBA processing facility head into the site and bear left into the IBA stockpile area where there are signs for each incoming source (as below). No tandem tipping is allowed. During tipping, all other personnel and vehicles are to keep clear of the area, until the material is tipped, body lowered, tailgate secured, and vehicle driven forward.

Figure 1. Signage for IBA deliveries



- Deliveries to the Enhanced IBA facility head into the site and bear right into the incoming reception area where each bay is signed with the producing Fortis site and size of material. No tandem tipping is allowed. During tipping, all other personnel and vehicles are to keep clear of the area, until the material is tipped, body lowered, tailgate secured, and vehicle driven forward.
- The shovel driver or delegate is responsible for inspecting the IBA delivered for contamination, unexpected characteristic, or undue amounts of unburnt waste.

- Variation in waste received is limited due to the preceding treatment process and the controlled nature of suppliers of waste.
- Non-Ferrous metals will also be inspected for contamination and any unexpected characteristics.
- Unburnt waste identified must be reported to site management immediately. Site management are responsible for organising quarantine, removal of the unburnt waste and raising a *non-conformance on EQMS*.
- Site management may contact the client to arrange collection of the quarantined IBA if deemed necessary.
- Conforming IBA is then pushed into the windrow and delivery dates are recorded on the IBA stockpile plan.
- Conforming Non-Ferrous Metals are pushed into the bay stockpile and delivery dates recorded.

Figure 2. Example of IBA quarantining



Fire Risk

- All IBA arriving to site is subjected to a quench bath on discharge from the incinerator. Some residual gases may develop with time in a sheeted vehicle. Gases are expected to dissipate quickly on tipping at site, however occasionally some of the material from the incinerator may re-ignite on the stockpile. If this happens, the excavator must leave the stockpile immediately and the site manager/supervisor informed.
- There is no risk of the non-ferrous metal re-igniting.

IBA and non-ferrous metal stockpile arrangements

- Stockpiles are arranged in windrows. During winter periods, the surface area may be reduced to reduce ingress of water by forming into regular trapezoidal structures. Base width of each pile is sufficiently wide to allow the excavator to receive delivered loads and stack to approximately 8m in height. Stockpiles are segregated by supplier as appropriate due to disparate commercial agreements and hazardous status requirements.
- Non-ferrous metals are stocked inside storage bays within the enhanced IBA recovery facility building reception area.
- IBA Stockpile plans are documented by the excavator driver to indicate the IBA delivery dates and client segregation.
- The stockpile plans are used to identify which section of the IBA stockpile can be processed once IBA is confirmed as non-hazardous.

- If the IBA was deemed hazardous, further testing may be undertaken and the stockpile plan would be used to identify and quarantine the effected IBA.
- Classification reports are received routinely from the incinerator operators. Classification status is recorded on the stockpile plan together with confirmation the IBA is permitted for processing.
- The IBAs suitability for processing is subject to it displaying satisfactory characteristics such as a suitable moisture content (14%-18%) for optimum processing. During the time prior to processing, the IBA is aging and chemically stabilises. Calcined products rehydrate and absorb carbon dioxide and water. Heat is produced giving rise to steam. The alkalinity reduces during the aging process.
- Non-Ferrous metals are processed again with consideration to moisture levels to avoid plant blockages – sheeting may be used to accelerate moisture loss in the heaps.

Formation of IBA Windrows

- The excavator will be fitted with a range of buckets but only the grading bucket (no teeth) will be used when near to the floor to prevent any risk of damage to the yard surface.

Figure 3.



- The incoming IBA lorries tip the material at the base of the open stockpile the loading shovel then pushes the loads together. Once the pile is together the 360 excavator climbs on top of this pile and creates a working platform normally 4-5m high and the width of the windrow, they then pull the rest of the material from the floor height and stacks it up behind him allowing the IBA to fall at its natural angle of repose which is approx. 33°.
- At the end of the day the 360 excavator dresses all faces making sure there are no sheer faces or overhangs.
- The excavator operator must ensure the machine bucket does not pass above people or vehicles at any time. Prior to collecting IBA in the machine bucket and placing on windrow, the excavator operator must visually assess it.

Figure 4. Example of windrows



Preparation of IBA Stockpiles for Processing

- Due to trafficking and the chemical reaction over the preceding weeks, some hardening of the IBA feed material may be experienced.
- To avoid introducing blockages into the processing plant, it is necessary to excavate from the pile and break up lumps so that the wheeled loader can transport and load into the plant. Care must be taken when approaching the asphaltic surface with the excavator bucket as the exothermic reaction may soften the road surface and cause damage. It is normal practice to use a grading bucket when within approximately 1 m of the road surface unless extreme care is taken.
- The excavator with a toothed bucket blends damp IBA from the outer layers of the windrow with drier IBA from the core of the stockpile to produce a homogenous plant feed that maximises metal recovery and screening efficiency whilst minimising fugitive dust emissions. Plant operators and excavator/shovel drivers organise this through effective communication and visually inspecting the IBA. The rain gun system is employed to provide additional water where the material is particularly dry.

IBAA Manufacture

- Once the metals have been extracted from the IBA, the resulting IBAA is discharged via radial conveyor then transferred into the 'new stock' section of the stockpile.

Figure 6. Radial Conveyor



- For the processing of Non-ferrous metals, the use of dry and wet dense media separation takes place to remove heavy metals from the IBA.
- The IBA light fraction is then run over ECS's to remove light metals and the resulting IBAA is blended back with the IBAA from the main processing plant.

IBAA and IBAA Limestone Blend Stockpiling

- The IBAA stockpile is arranged into a large trapezoidal structure within the front field storage area. The loading shovels and 360 excavator work in tandem and stack IBAA to approximately 5m in height.
- The aged IBAA is tested against applicable highways specifications. The IBAA is also blended with imported Limestone and tested against relevant highways specifications.
- 20-40mm limestone is imported to site to blend with the IBAA at a ratio of 80:20 to create a Type 1 specification.
- 40-80mm limestone is imported to site to blend with the IBAA at a ratio of 75:25 to create a 6F5 specification.

IBAA Aging

- “Aging” – a natural chemical reaction resulting in the reduction of pH levels and crystallisation of aluminium sulphate, is sped up throughout the stockpile with the addition of water.
- The process generates heat which dries the IBAA. The tractor and bowser is employed to add water to the IBAA by spraying water onto the working face before loading into trucks.
- Dust Hazard Assessment are undertaken each morning, prior to the 360 commencing work, the 360 operator, will assess the conditions to determine any potential risk of dust leaving the site boundary. The weather conditions will dictate what operations are acceptable.
- If the material is extremely dry, or the wind speed / direction could result in dust leaving the site, DO NOT PROCEED. It may be possible to add water or to relocate the excavator onto a part of a windrow further away from the perimeter.

- Continually wetting the IBAA can cause it to harden, which then results in more time to break up with the excavator prior to sale.

IBAA for Dispatch

- IBAA for dispatch is the oldest IBAA from the stockpile. If this material is stored for several days or weeks prior to loading it may require the excavator to break through the hardened crust of the material. The excavator will be fitted with the toothed bucket. The material may also dry out through this time so additional water should be added to maintain the optimum moisture content.
- Orders for IBAA dispatch are processed via the Quarry Minder software which notifies the site teams.
- Incoming vehicles collecting IBAA present paperwork at the weighbridge which is verified against Quarry Minder.
- Site management ensures the correct IBAA is dispatched as per the order.
- A waste transfer note is issued and must include the customer's name, waste description, EWC code, the haulier's name, waste carrier registration number, vehicle registration number, drivers name, and the weighbridge date, time, and weights.
- The waste transfer notes are held on Quarry minder for a minimum of 3 years.

Capacity of waste on site

- The IBA site capacity is monitored using the production schedule, the schedule contains all the incoming IBA tonnage, IBAA tonnage and non-ferrous metal tonnage.
- The production schedule also incorporates the amount of IBA processed, the metals stocked and sold and the IBAA stocked and sold.
- The capacity of the IBA storage area is as follows:
 - IBA = 72,000t
 - IBAA = 75,000t
 - Non-ferrous metals = 3,450t

Records

IBA Stockpile Plans
Weighbridge waste transfer notes (tickets)
Non-conformance log on EQMS
Waste Carrier License
Production Schedule

Related Documents

Safe Working Practice Excavator
Safe Working Practice Wheeled Loading Shovel
Site Traffic Plan
Risk Assessment – RA09 Haulage Operations
ESA Protocol

I acknowledge that I have read, understood, and agree to follow this procedure.

[illegible]

APPENDIX 7

Specification for Dust Extraction System

Specifications

Option 1 - Dust Filter System

Dust Filter Units

Construction: Powder coated mild steel, containerised construction.

Primary Filter: High-capacity pleated filter element G4 grade

Secondary Filter: High efficiency bag filter with graduated density media.

Duty: Filtration that can withstand 80,000m³/hr of total airflow combined.

Dimension: 2895mmH x 2440mmW x 2990mmL (Approx)

Access to Filters: Via filter access doors.

Access to Fan: External fan.



Centrifugal Fan

Type: Centrifugal extract fan with motor out of airstream, direct drive

Material: 2.0mmth mild steel, 2mm mild steel painted support parts

Duty: Up to 3000Pa @ 80,000m³/hr.

Estimated Power: 35kW

Motor: 3-phase, 4-pole



Ductwork – Galvanised Spiral

The efficiency, performance and noise levels of an extraction system are determined largely by the extract system connected to it. Our experienced teams are aware of and will confirm to the ductwork legislation of DW/144.

Material: Galvanised spiral ductwork, with high radius bends, fabricated and installed to the recommendations of HVCA DW/144.



Standard Controls

Panel: IP54 rated, internally mounted near plant area to receive 3-phase incoming.

Indications: Normal and alarm indication of operation with appropriate signal lights, normally taken as outputs from the inverters

Differential Pressure: Switch to indicate blocked filter with signal light.

Switches: On/Off and isolator control and provision for remote start/stop

Gauges: Magnehelic pressure gauge for dust filter loading.

Control Method: Manual electromechanical control with no requirement for PLC

Accessories: Integral inverter for speed control

(For SCADA integration, volt free contact terminals can be provided to show fan healthy, run, and tripped status as well as filter blocked alarm).

Colour: RAL7035

Corrosion Level Coating: C3



APPENDIX 8

A303 BAT Return Spreadsheet metals v2

APPENDIX 9

Management System Documents and Certificates



CERTIFICATE OF REGISTRATION

This is to certify that

Fortis IBA Ltd

Fryern House
125 Winchester Road
Chandlers Ford
Eastleigh
Hants
SO53 2DR

has been audited and found to meet the requirements of standard
ISO 14001:2015 Environmental Management System

Scope of certification

The processing and recovering of incinerated bottom ash.

Vicki Howlett

General Manager - Certification UK

Certificate number: 2982

Issue number: 2024-01

Certificate effective date: 29 January 2024

Certificate expiry date: 5 February 2027

Date of initial certification: 6 February 2018

Issuing Office: Warringtonfire Testing and Certification Limited t/a BM TRADA Chiltern House, Stocking Lane, High Wycombe, Buckinghamshire, HP14 4ND, UK
Registered Office: Warringtonfire Testing and Certification Limited, 3rd Floor, Davidson Building, 5 Southampton Street, London, WC2E 7HA, UK
Reg No. 11371436.

This certificate remains the property of BM TRADA. This certificate and all copies or reproductions of the certificate shall be returned to BM TRADA or destroyed if requested. Further clarification regarding the scope of this certificate and verification of the certificate is available through BM TRADA or at the above address or at www.bctrada.com/certified-companies/check-a-certificate

The use of the UKAS accreditation mark indicates accreditation in respect of those activities covered by the accreditation certification number 012. For further information on bctrada activities covered by UKAS accreditation please go to: <https://www.ukas.com/search-accredited-organisations>

Appendix A

The network of participating sites shown below is included in the scope of certification shown on certificate number (2982)

Branch	Address
Fortis IBA Ltd	Ardley IBA Processing Facility Middleton Stoney Road Ardley Oxfordshire OX27 7AA
Fortis IBA Ltd	A303 Environmental Park Drayton Road Barton Stacey Winchester Hampshire SO21 3QS
Fortis IBA Ltd	Calvert Processing Facility Calvert Landfill Brackley Lane Calvert Buckingham MK18 2HF
Fortis IBA Ltd (South East)	Ridham Dock, Plot 6B Ridham Dock Road Sittingbourne Kent ME9 8SR

Environmental Management System Manual

Issue no. 7

June 2025

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ISO 14001:2015 Clause

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1. Amendments

Version	Date	Details of Amendment
1	01/05/2015	Initial issue. EMS developed to meet the requirements of BS EN ISO14001:2015
2	09/10/2018	Change of wording in 9.3 – changed quarterly reviews to annual with option of monthly.
3	01/08/2019	Procedure references updated to reflect new integrated management system procedures
4	22/09/2020	Annual review. Changes made to streamline against QP manual and Fortis HS and Quality manuals.
5	25/01/2022	Annual review. Minor formatting changes.
6	29/08/2023	Annual review. Minor formatting changes. Updated QCL & T&E Manager to Group Quality & Technical Manager.
7	16/06/2025	Review due to change of document ownership. Changed responsibility from GQ&T Manager to Environmental Compliance Manager. Amended context in 4.1 to incorporate effects of climate change on EMS.

2. Introduction

Fortis is the Incinerator Bottom Ash (IBA) processing division of Raymond Brown Minerals and Recycling Limited (RBMR). It was formed in 2016, following a management buyout of RBMR from Raymond Brown Group. RBMR had previously been processing IBA since 2008.

Fortis operate at a variety of locations around the United Kingdom, providing a waste processing service to multiple customers in the municipal incineration industry. In turn, the main process creates pre-separated metal streams for the metal recycling industry and Incinerator Bottom Ash Aggregate (IBAA) supply for the construction and civil engineering industry.

Fortis is dedicated to the continual improvement of its processes; regularly reviewing outputs and opportunities for technological improvement to ensure maximum recycling and recovery of metals is achieved.

3. Distribution and Revision

This Environmental Management System (EMS) Manual is a controlled document within the EMS. The controlled master copy is maintained in the EQMS system. Uncontrolled copies can be printed when required, however they are only current at the time of printing and will not be updated.

The Environmental Compliance Manager has overall responsibility for the review and revision of this manual. All amendments to this document are recorded in the table within section 1 (Amendments).

4. Context of the Organisation

4.1. The Context of the Organisation

In order to establish, implement, maintain and continually improve our EMS Fortis shall determine the context within which it operates. This context has been determined by identifying its purpose and strategic direction and internal and external issues which may affect its ability to achieve the intended outcomes of our EMS. We recognize that we do not operate in isolation but are influenced by external and internal issues including the availability of resources and the involvement of employees. This also includes our organisational structure, activities and geographical locations. The context also includes the natural environment in which we operate, both existing conditions and events which can affect our activities, products and services.

Fortis IBA has undertaken a detailed review associated with the Context of the Organisation, Interested Parties and Planning to Address Risks and Opportunities requirements of the ISO 9001:2015, ISO14001:2015 and ISO 45001:2018 Standards to address the recent amendment to include Climate Change Considerations.

This included a review of the Risk and Opportunity Register (MSF1.4) which identified the following issues: The impact of climate change on Fortis IBA Head Office (e.g. flooding, extreme temperature) with the mitigation identified as: The Head Office has air conditioning to provide comfortably work environment during extremes of temperature; Office Staff to work from home with access to the server via VPN if it is impractical to travel to office due to extreme weather; The servers are located away from site to provide protection against flooding.

The impact of climate change associated with Fortis IBA ability to deliver its products at the processing sites by its staff with the mitigation identified as: Consideration of climate change impact associated with Fortis

IBA works (e.g. flooding, extreme temperature); Staff are trained and alerted to issues such as flooding and other extreme weather conditions via the Media and are able to adjust their work patterns accordingly. Interested Parties were noted as customers and staff.

The Fortis processing sites are subject to rigorous inspection regimes. Fortis personnel are provided with Tool Box Talks for times of hot weather on how to mitigate the effects of this. The current RAMS include working in hot weather.

Also, Fortis has a Business Continuity & Disaster Recovery Policy dated March 2024 to address such situations as IT failure and loss of premises. Interested Parties were noted as customers and staff.

Fortis has also undertaken a Climate Change Adaptation Risk Assessment in line with the latest [EA guidance - Non-hazardous and inert waste treatment: examples for your adapting to climate change risk assessment](#) that applies to all sites and lists how we adapt to the following impacts:

- Increased summer daily maximum temperatures - This may be around 7° C higher compared to average summer temperatures now, with the potential to reach extreme temperatures as high as over 40°C with increasing frequency based on today's values.
- Winter daily temperatures - This could be 4° C more than the current average with the potential for more extreme temperatures, both warmer and colder than present.
- Daily extreme rainfall - Daily rainfall intensity could increase by up to 20% on today's values.
- Average winter rainfall - Average winter rainfall may increase by over 40% on today's averages.
- Drier summers - Summers could see potentially up to 40% less rain than now.
- River flow - The flow in the watercourses could be 50% more than now at its peak, and 80% less than now at its lowest.
- Storms - Storms could see a change in frequency and intensity. The unique combination of increased wind speeds, increased rainfall, and lightning during these events provides the potential for more extreme storm impacts.

Fortis has limited ability to influence climate change related activity associated with its Head Office and processing sites, but as far as possible follows sustainable practices, such as appropriate maintenance of all plant and equipment, reducing waste, minimising travel and energy consumption to minimise impacts on climate change.

Climate change is therefore considered to be a relevant risk to the functionality of Fortis IBA, but the risk is assessed, mitigated and managed.

Applicable procedure MSP01 Context

4.2. The Needs and Expectations of Interested Parties

Interested parties are part of the context in which Fortis operate and are required to be considered when reviewing our context.

Fortis shall determine its interested parties and their needs and expectations relating to the EMS. By identifying the relevant needs and expectations of relevant interested parties we can determine the statutory and regulatory requirements and obligations we choose to comply with.

For identified internal and external interested parties we shall gain an understanding of their expressed needs and expectations which have been determined as relevant, so that they can be considered when determining our compliance obligations.

Applicable procedure MSP02 Interested Parties, Needs and Expectations

4.3. The Scope of the Environmental Management System

The scope of our EMS shall clarify the physical, functional and organisational boundaries to which it applies. This shall be achieved in determining the boundaries and applicability of our EMS and understanding the context of our organisation and the needs and expectations of workers and other interested parties. Understanding the physical boundaries of our operations, and organisational sphere of control and influence considering the lifecycle shall also be taken into consideration in determining the scope of our EMS.

The scope of the management system includes the operation of IBA processing facilities including the site offices and separate administration centres.

Applicable documentation: MSF10 Fortis Scope

4.4. Environmental Management System

Our EMS shall provide an organising framework that will be continually monitored and regularly reviewed to ensure direction to our response to changing external and internal issues.

The model for our EMS and the ongoing process of continual improvement shall adopt the Plan-Do-Check-Act (PDCA) approach which is illustrated in Figure 1.

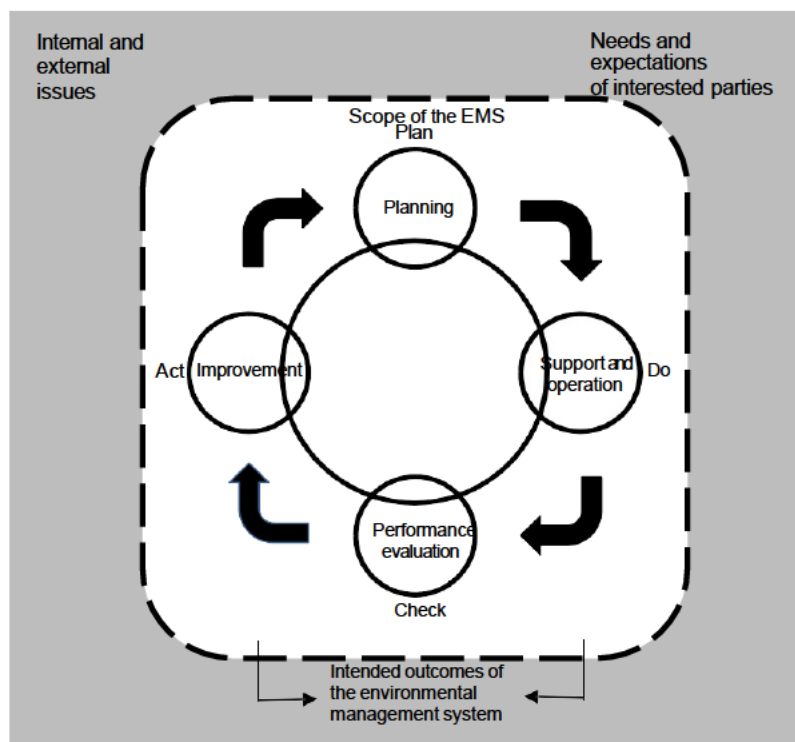
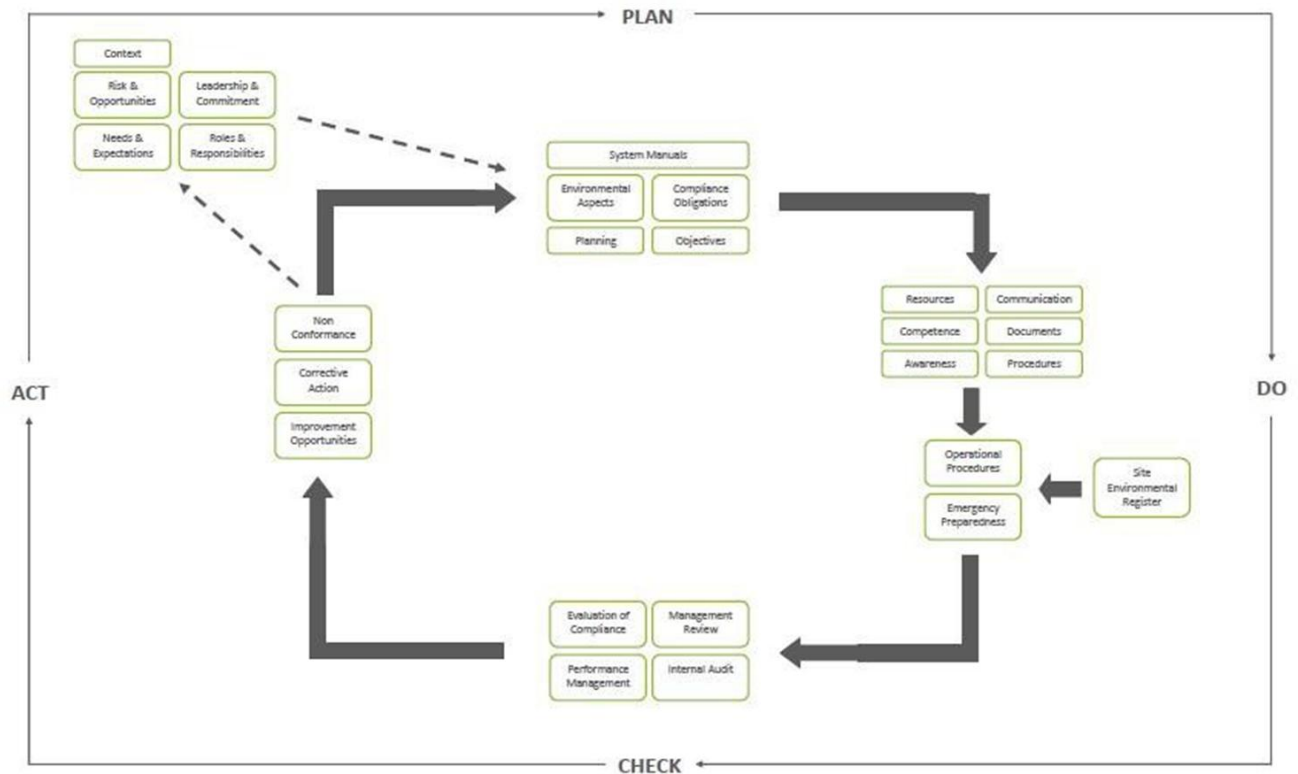


Figure 1 Environmental management system model.

The interactions of our EMS processes within the PDCA model are illustrated in Figure 2.



By establishing, implementing, maintaining and continually improving our EMS we shall achieve its intended outcome. In particular, performance knowledge gained from understanding our organisation and the context and the needs and expectations of interested parties shall enhance environmental performance.

A variety of processes are required, through the EMS, for the successful operation of the business. These are split into two types; individual on-site processes and central processes, which are explained through management system procedures and documents. An overview and interaction of these business processes is documented in MSF1.6 (Business Processes) and MSF1.7 (Process Interaction). The environmental documents, environmental procedures and the site process manuals are listed and available in the EQMS system.

5. Leadership

5.1. Leadership and Commitment

Mission statements, vision statements and core values considering the context (business environment), the needs and expectations of interested parties (including workers) and business objectives shall be set by the Director's as part of the company's strategic plans. The Directors commitment, accountability and leadership are vital for the successful implementation of our EMS. This commitment means providing physical and financial direction, resources and active involvement that supports the EMS and communicates the importance of effective management.

This commitment shall ensure that the EMS:

- Is not managed in isolation or separately from the core strategy of the business
- Is considered when strategic business decisions are made

- Is aligned with business objectives
- Receives the appropriate levels of resources
- Receives the appropriate involvement across the business
- Provides value to the organisation
- Continually improves in the long term

The importance of effective environmental management and conformance to the EMS requirements shall be communicated through direct involvement by the Senior Management and through the delegation of authority to the Environmental and Compliance Manager.

The Senior Management aims to create a culture that encourages employees at all levels to actively participate in the EMS to assist in the achievement of environmental objectives and identifying opportunities of improvement.

Applicable procedure MSP03 Leadership and Commitment

5.2. Environmental Policy

The Fortis Environmental Policy defines the strategic direction of the organisation with respect to the environment within the defined scope of our EMS. It shall provide a framework for establishing environmental objectives and set levels of responsibility and performance.

Senior management is responsible for establishing and implementing our Environmental Policy. It shall be communicated to all persons working under our control and made available to all interested parties.

Our Environmental Policy is published separately to this manual and displayed at sites. The controlled copy is stored on the EQMS system.

5.3. Organisational Roles, Responsibilities and Authorities

Successful establishment, implementation and maintenance of our EMS and improvement of our environmental performance require Senior Management to clearly define and assign responsibilities and authorities within the organisation. These roles must carry sufficient authority, awareness, competence and resource to ensure:

- The establishment, implementation and maintenance of the EMS at all levels of the organisation
- Report back to the Senior Management on the EMS, environmental performance and opportunities for improvement.

The management structure for the company is detailed in procedure MSP04 (Organisation and Responsibilities). Responsibilities and authorities of persons working under the control of Fortis whose work affects the EMS are to be clearly defined and communicated within the company.

These responsibilities and authorities shall be reviewed when a change in the organisational structure occurs.

Applicable procedures MSP04 Organisation and Responsibilities

5.4. Consultation and Participation of Workers

Fortis shall establish, implement and maintain a process for the consultation and participation required by workers affected by our activities to ensure the effective implementation of the EMS. This includes the provision of site meetings and briefings.

Appropriate worker consultation is required for EMS development, planning, implementation, performance evaluation and improvement.

Appropriate worker participation involvement includes:

- Determining mechanisms for consultation and participation
- Identification of hazards and assessing risks and opportunities
- Determining actions to eliminate hazards and reduce environmental risks
- Determining competence requirements, training needs, training and evaluating training
- Determining communication methods and content
- Determining control measures and their effective implementation and use
- Investigating incidents, nonconformities and determining corrective actions

Applicable procedures	MSP10.2 MSP10.3	Site Safety Meetings Site Safety Representatives
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6. Planning

6.1. Actions to Address Risks and Opportunities

6.1.1. General

Planning is required to ensure our EMS achieves its intended outcomes. Our planning process shall be used to establish, implement, maintain and improve our EMS based on inputs into the system and changing circumstances. It shall identify and provide resources to the areas that are most important for the protection of the environment. This process will also assist the company in fulfilling our compliance obligations, our environmental policy commitments and achieving our environmental objectives.

We identify three sources of risk and opportunity that need to be addressed in order to ensure that the EMS can achieve its intended outcomes:

- Environmental aspects
- Compliance obligations
- Other issues and requirements (in connection with the context of the organisation and understanding the needs and expectations of interested parties).

When determining and addressing risk shall include the following:

- Significant environmental aspects
- Non fulfilment of compliance obligations
- Environmental conditions

- Customer needs
- Views of interested parties
- Consideration of unintended outcomes
- Environmental aspects

When determining and addressing opportunity shall include the following:

- Resource conversation
- Working with interested parties
- New technology

Applicable procedures MSP05 Risk and Opportunity

6.1.2. Environmental Aspects

For our EMS to be effective we shall develop an understanding of how we interact with the environment. The activities of our organisation which interact with the environment are called environmental aspects. These may include for example a discharge, an emission, use or reuse of material, or generation of noise.

Our EMS shall allow us to determine the environmental aspects that we can control or have influence. These environmental aspects need to be considered from a life cycle perspective. Changes to the environment can be either adverse or beneficial. These changes that result wholly or partially from our environmental aspects and called environmental impacts. Examples of adverse impacts include pollution of air and depletion of natural resources. Examples of beneficial impacts include improvement in recycling rates and preserving natural resources.

Our EMS shall provide for the identification and understanding of those aspects that can have a significant impact on the environment. Determining significant environmental aspects and associated environmental impacts shall allow Fortis to determine where control of improvement is needed and to set priorities for action.

Life cycle perspective.

Our activities, products and services have impact on the environment which can occur at any or all stages of the life cycle. We shall identify those activities, products and services that fall within the scope of our EMS in order to identify the associated environmental aspects and environmental impacts.

Determining environmental aspects.

In determining the environmental aspects that fall within the scope of our EMS they are to be considered using the life cycle perspective. Consideration shall also include past, current and planned activities, products and services. When evaluating our ability to influence the identified environmental aspects consideration shall be given to identified compliance obligations, policies and site specific issues.

Applicable procedure MSP05.2 Environmental Aspects and Impacts

6.1.3. Compliance obligations

Compliance obligations can result in risks and opportunities that will need to be addressed. By understanding how they apply to Fortis we shall ensure we fulfil our compliance obligations by determining and maintaining a formal register of all compliance obligations including applicable legislation

and other requirements that are applicable to our environmental aspects and how they apply to the company.

Fortis shall ensure that appropriate information about compliance obligations is communicated and made available to employees and to persons working under our control (including contractors) whose responsibilities relate to, or whose actions can affect, fulfilment of compliance obligations.

To ensure legislation and other requirements held by the company are at their latest issue Fortis shall subscribe to an online updating service which shall allow access to all such documents and provide information on updates and amendments. Pending and new legislation and other requirements shall be reviewed, and actions taken to ensure that those persons and activities affected are aware of any such changes, their impact, and actions required to comply.

Fortis shall also consider and prepare for new or changing needs from interested parties and workers so that preparatory actions can be taken to maintain conformity. Consideration shall also be given to how planned or new developments and new or modified activities, products or services can affect our compliance status. Where changes to procedures and arrangements are required their implementation shall be managed to ensure integrity is maintained at all times.

Applicable procedures MSP05.1 Compliance Obligations

6.1.4. Planning Action

Our EMS shall provide for us to plan and take action to address the identified significant environmental aspects, compliance obligations and risks and opportunities. We shall also determine the effectiveness of actions taken.

Planning to take action may include establishing an environmental objective, operations controls, emergency preparedness and other business processes. Technological options, feasibility, financial, operational and business requirements may all be considered. The potential for any unintended consequence shall also be considered.

Methods shall be established for evaluating the effectiveness of actions taken against expected performance levels.

Applicable procedures MSP06 Planning

6.2. Environmental Objectives and Planning to Achieve Them

6.2.1 Environmental Objectives

Environmental objectives shall be established with the aim of fulfilling our commitment to our Environmental Policy. The process of establishing and implementing environmental objectives shall provide for improvement in environmental performance.

When establishing our environmental objectives we shall consider:

- The principles and commitments of our environmental policy
- Needs and expectations of interested parties and workers
- Significant environmental aspects
- Compliance with standards, obligations and other applicable requirements

- Risk and opportunity
- The effect of achieving environmental objectives on other activities and processes
- Effects on public image and reputation
- Environmental reviews
- Other company objectives

Environmental objectives shall be established by top management with involvement at other levels where activities important in achieving the environmental policy commitments are carried out.

Environmental objectives shall be consistent with our environmental policy commitment to the protection of the environment, prevention of pollution, fulfilment of compliance obligations and continual improvement.

Environmental objects may be set as a specific performance level or expressed in a more general manner with targets. Where targets are set they shall be measurable and include a specific time frame. They can be applicable across the company or to site specific activities.

Persons involved in and their responsibilities for achieving objectives shall be identified.

Communication of our environmental objectives will assist in our ability to achieve them. Documented information on our environmental objectives shall be provided to those responsible for achieving them and to other personnel who need such information to carry out related functions.

6.2.2. Planning Actions to Achieve Environmental Objectives

Programs for achieving our environmental objectives shall be established. This program shall identify role, personnel involved, and responsibilities, resources, timeframe, priorities and actions required for achieving the environmental objectives. The program shall be dynamic adjusting to changes in process, activities, services and products accordingly within the scope of our EMS.

Fortis shall establish a set of environmental performance indicators for monitoring progress in achieving our environmental objectives and continual improvement. These performance indicators shall be appropriate to the activity and consistent with our Environmental Policy and produce objective, verifiable and reproducible results.

Communication of our environmental objectives will assist in our ability to achieve them. Documented information on our environmental objectives shall be provided to those responsible for achieving them and to other personnel who need such information to carry out related functions. Progress will be monitored on a regular basis and reported at management meetings and discussed at the Management Review.

Applicable procedures MSP16.1 Management Objectives

7. Support

7.1. Resources

Resources shall be provided for establishing, implementing, maintaining and improving our EMS. In determining the resources required we shall consider:

- Human
- Infrastructure

- Operational environment
- Monitoring and measuring resources
- Organisational resources (including information systems, finances, technology)
- Capabilities and constraints on existing internal resources (including competence)
- Externally provided resources (including reviewing Fortis requirements)
- Other resources specific to our activities, products and services

These resources shall be provided in a timely manner. The adequacy for resources shall be regularly reviewed where consideration shall be given to present and future needs including planned changes and/or new projects or operations.

Applicable procedures MSP07 Resources

7.2. Competence

Competency is a combination of sufficient training, education, knowledge and other qualities to enable the undertaking of responsibilities and performance of activities to a regular standard on a regular basis. All persons undertaking work that affects or can affect our environmental performance, including our ability to fulfil legal requirements and the effectiveness of the EMS, shall be competent as determined by Fortis. These requirements are applicable to employees and others working under our control including contractors. Fortis will retain appropriate documented information as evidence of competence.

Competency requirements necessary to achieve the intended outcomes of the EMS applicable to each role shall be identified. This is to ensure that persons understand the hazards and risks involved and are aware of the consequence of their work activity and behaviour and the requirement for suitable and sufficient control measures for the tasks they are required to perform. Fortis is committed to the on-going training of all employees who have an influence on environment. Documented information shall be used to ensure competency needs are addressed, progress of actions (including education, training and mentoring) is tracked to evaluate effectiveness and competency obtained, and on achieving competency the relevant communication and information is retained and made available to interested parties.

Applicable procedure	MSP09	Competency Management
	MSP09.1	Competency – Site Training Matrix
	MSP09.2	Competency – Additional Training
	MSP09.3	Competence – New starters H&S requirements

7.3. Awareness

The Senior Management has the responsibility for building awareness in relation to the EMS and environmental performance in order to enhance knowledge and promote behaviour that supports our Environmental Policy commitments. This awareness includes ensuring employees and other persons working on behalf of the company understand our health and safety values and how they contribute towards our business strategy.

Environmental awareness is promoted throughout all levels of the company by integrating it with all business activities. The awareness of the Environmental Policy, aspects and impacts, risks and actions, legal requirements, their contribution to the effectiveness of the EMS (including benefits of improved performance) and the implications of not conforming to it are presented to Fortis employees and contractors during their induction. Employees and contractors / suppliers (where applicable) shall be made

aware of nonconformities and the outcome of investigations that are relevant to them. Employees are also given Toolbox Talks periodically throughout the year, including an annual briefing on the objectives for the year ahead. Environmental awareness is measured by audits, inspections and engagement visits by Senior Management.

7.4. Communication

7.4.1. General Communication

Effective communication is vital to the successful establishment, implementation, understanding, maintenance and control of the EMS. Fortis shall establish a communication process within our EMS. This process shall identify:

- What information needs to be communicated
- When or under what circumstances it needs to be communicated
- To whom it needs to be communicated (including employees, contractors, visitors and interested parties)
- Method for communicating

The approach and methods used for communicating information shall be defined and be appropriate for the particular circumstance as required. Communicated information shall be relevant to our obligations, reliable and consistent with the information generated within the EMS. It shall also include arrangements for receiving and responding to internal and external communications. The requirement for the documentation and recording of information shall be determined considering its significance.

7.4.2. Internal Communication

Communication between the levels and functions within Fortis, including changes to the EMS as appropriate, are essential to the effectiveness of the EMS. The provision of clear information to those working under our control and visitors shall encourage acceptance of our efforts to continually improve our environmental performance.

7.4.3. External Communication

Communication requirements of information associated with our EMS shall be determined and information provided externally as required. Requirements for communicating externally to interested parties regarding relevant information on environmental aspects shall also be established. A defined process for the communication with external parties in the case of emergency situations that may affect or concern them shall be implemented.

Applicable procedures	MSP10	Communication
	MSP10.1	Site Induction
	MSP10.2	Site Safety Meetings
	MSP10.4	Tool Box Talks, Safety Alerts, Reminders and Briefings
	MSP10.5	Site Safety Notice Boards

7.5. Documented Information

7.5.1. General

Fortis shall develop and maintain adequate information to ensure that our EMS is operating effectively, is understood by persons working under our control and other interested parties and that the processes associated with our EMS are carried out as planned.

Documented information may refer to any manual, policy, procedure, form or document created or adopted for the purpose of operating the Environmental Management System and shall be maintained to ensure consistency, timeliness and repeatability of outcomes. Controls are required to prevent any unauthorised changes or unintended loss, and to ensure they are up to date and meet requirements of the management system standard.

Documented information in the form of records shall be retained as evidence of the results achieved or activities performed in order to demonstrate effective implementation of our EMS.

For the effective management of key activities, we shall establish documented Operational Controls or Management Procedures to describe how to carry out the activities and describe in appropriate detail how they are to be managed. Where a key activity process is not documented affected persons shall be informed of the requirements to be met through appropriate communication and training.

Appendix 1 provides a list of the procedures referred to throughout this Environmental Management System Manual.

7.5.2. Creating and Updating

Documented information relating to our EMS shall ensure appropriate:

- Identification and description (title, reference number, date and optionally author)
- Format and media
- Internal review and approval for suitability and adequacy

7.5.3. Control of Documented Information

Documented information shall be controlled to ensure:

- Information can be identified with the appropriate organisation, division, function and activity
- Information is regularly reviewed, revised as necessary and approved prior to issue
- Current versions of relevant information are available at locations with obsolete information promptly removed from all points of issue and from places and situations of use

Documented information shall be controlled by:

- Using a standard template that includes a unique title, reference number, date, revision, revision history and authority
- Review and approval of documented information by individuals with sufficient capability and authority
- Maintaining an effective distribution system

Issued documentation (documents, procedures, blank forms and guidance) relating to the EMS is stored on the EQMS. It is a secure permission based, management systems platform used by Fortis for the storage, version control and access for all controlled documents. It is based on a web server outside of the

company facilities which is backed up in multiple locations. Other information, including records pertaining to the EMS, are accessed and stored within the HSQE document filling system which has a read and write access granted on a user type basis to maintain security.

Applicable procedures	MSP12	Documented Information
	MSP12.1	Documented Information – Records

8. Operation

8.1. Operational Planning and Control

In order to ensure the fulfilment of the commitments of our Environmental Policy, achieve environmental objectives, manage our significant environmental aspects, compliance obligations and risks and opportunities we shall ensure that our operations are conducted in a controlled manner.

To plan for effective and efficient operational controls we shall identify where such controls are needed and for what purpose. We shall establish the types and levels of controls and ensure such controls are maintained and periodically evaluated to provide for their continuing effectiveness.

The planning and control of operations relevant to the EMS shall take the form of documented procedures (including risk assessment), work instructions, physical controls, competent personnel or any combination of these. Operational controls shall be monitored to ensure the effectiveness of their continuing application and to plan for actions where needed to maintain compliance.

When determining controls or considering changes to existing controls consideration shall be given to:

- The sequence and criteria of activities and process to be carried out
- Risk and opportunity
- Controls required and implementation
- Resources
- Qualifications of personnel involved
- Key variables that should be kept within certain limits
- Documented information – procedure and records
- Measuring, monitoring and evaluation – has operating criteria been met
- Potential unintended consequences and mitigation opportunities

8.2. Emergency Preparedness and Response

Plans shall be developed, implemented and practiced to respond to reasonably foreseeable emergency situations. These plans shall consider both the initial environmental impact and any secondary environmental impact that may occur as a result of responding to the initial environmental impact.

Applicable procedures	MSP13.1	Emergency Preparedness – Site Emergency Plans
	MSP13.2	Public Relations - following a major incident

9. Performance Evaluation

9.1. Monitoring, Measurement, Analysis and Evaluation

9.1.1. General Monitoring, Measurement, Analysis and Evaluation

Fortis shall apply a systematic approach to monitoring, measurement, analysis and evaluation of our environmental performance and EMS effectiveness. This includes the identification of requirements, methods, frequency and result interpretation. Monitoring and measuring shall be undertaken on a defined regular basis in order to accurately document, report and communicate on our ENVIRONMENTAL performance and EMS effectiveness both internally and externally to interested parties as required.

Monitoring shall refer to processes where observations are made over time without necessarily using monitoring equipment. Measurement refers to processes where equipment is typically used to determine quantitative and qualitative properties. Therefore, additional controls to ensure the calibration of such equipment may be required.

The requirement for monitoring and measurement shall be determined from our environmental commitments and objectives, compliance obligations and requirements, and operational controls including identifying hazards, risks and opportunities. Relevant indicators shall be established that provide information for evaluation of our environmental performance and appropriate to our environmental commitments.

Monitoring and measurement shall be conducted under controlled conditions with documented processes on calibrated or verified equipment to assure validity of results. Where external providers or laboratories are used testing techniques shall have been either accredited by a national accreditation body or approved regulator. Documented information shall be retained as evidence of the monitoring, measurement, analysis and evaluation of results.

Results from monitoring and measuring shall be analysed to identify nonconformity, adherence to limits specified by compliance obligations, performance trends and opportunities for continual improvement.

Applicable procedures	MSP14	Monitoring, Measurement, Analysis and Evaluation
	MSP14.1	Control of Monitoring and Measurement Devices
	MSP15	Audits
	MSP15.1	Site Systematic Inspection Scheme
	MSP15.2	Director/Senior Management Safety Visits

9.1.2. Evaluation of Compliance

Fortis shall establish, implement and maintain a process to evaluate the extent to which our compliance obligations with applicable legislation and other requirements are fulfilled. This process shall help Fortis demonstrate our commitment to fulfilling compliance obligations, understand our compliance status, reduce the potential for regulatory violations and avoid adverse action from our interested parties. Evaluation of compliance against our compliance obligations shall be undertaken at defined intervals.

Evaluation of compliance shall use the output from other areas of the EMS to determine whether Fortis is fulfilling its compliance obligations.

Note: Although internal audits can be used to determine the effectiveness of the processes established and implemented to fulfil our compliance obligations they will not be used on their own to demonstrate compliance obligations have been fulfilled.

Where a failure or potential failure to fulfil a compliance obligation has been identified action is to be taken using our nonconformity and corrective action process. Where required the failure to fulfil compliance obligations shall be reported to the relative interested party.

Applicable procedures	MSP14	Monitoring, Measurement, Analysis and Evaluation
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9.2. Internal Audit

9.2.1. General

Internal audits of the EMS shall be conducted at planned intervals to determine and provide information on whether the system conforms planned arrangements and has been properly implemented and maintained.

9.2.2. Internal Audit Programme

An internal audit programme shall be established to ensure the planning of internal audits and to identify the audits needed to achieve the audit program objectives. The frequency of internal audits shall be based on the nature of our operations in terms of our environmental aspects and potential environmental impacts, risks and opportunities, the results of previous internal and external audits and other relevant factors.

Outsourced processes shall also be considered in the planning of the audit programme. The internal audit programme shall cover all locations and functions, system elements and the full scope of the EMS, ensuring they are audited to a defined frequency.

Internal audits shall be planned and conducted by an objective, impartial and competent auditor.

Internal audits shall be formally recorded as documented information with the report confirming compliance or used to correct or prevent specific nonconformities.

Applicable procedures MSP15 Audit

9.3. Management Review

Fortis shall conduct a review of its Environmental Management System to evaluate the systems continuing suitability, adequacy, effectiveness and alignment with the strategic direction of Fortis. Its review shall cover the environmental aspects of the activities, products and services that are within the scope of the EMS.

Monthly management meetings can be used as a supplementary review of aspects of the EMS, in addition to a full management review annually.

The Management Review shall cover:

- The status of actions from previous management reviews
- Changes in external or internal issues, needs and expectations of interested parties, compliance obligations and legal requirements, and risks and opportunities
- Extent to which environmental objectives have been achieved
- Environmental performance, monitoring and measurement results, including nonconformity (including incident investigation) and corrective action, significant environmental aspects, audit results, interested parties' and workers' communications (including complaints), compliance obligations fulfilment, opportunities for improvement and adequacy of resources

The intended outputs of the Management Review shall include conclusions regarding the EMS, and any consequential opportunities for improvement, EMS changes, actions and resource needs, opportunities to integrate EMS with other business processes and any implications for Fortis strategic direction.

Applicable procedures MSP16 Management Review

10. Improvement

10.1. General Improvement

Fortis shall determine and select opportunities for improvements and implement any necessary actions to meet the requirements and maintain the effectiveness of our EMS. Opportunities for improvement shall be identified from monitoring, measurement, analysis and evaluation of environmental performance and fulfilment of compliance obligations, audits of our EMS and the management review, feedback from interested parties, industry advancements and research. Implementation shall include improvements to meet current requirements as well as addressing future needs and expectations; correcting, preventing or reducing undesired effects; and continually improving the performance and effectiveness of the EMS, and is managed through methods for change.

10.2. Nonconformity and Corrective Action

Fortis shall establish, implement and maintain a systematic approach for the identification, taking actions to mitigate any adverse impacts (including control, corrections, consequential), formal reporting, investigation and causal analysis to determine and manage incidents and nonconformities.

Nonconformity is the non-fulfilment of a requirement which can be stated in relation to our EMS or in terms of environmental performance. Internal audits and site inspections are one way of periodically identifying nonconformities. Nonconformities shall be investigated to determine the cause in order for corrective actions to be focused on the appropriate part of the EMS, risk and relevant risk assessments shall be reviewed to ensure current and adequate. Plans for addressing nonconformities shall consider actions to resolve the problem, changes to correct the situation and restore normal operations, and actions to eliminate the causes and prevent the nonconformity from recurring or occurring elsewhere. The action will be risk assessed prior to implementation, based on the hierarchy of controls, and timing shall be appropriate to the nature and magnitude of the nonconformity or incident and the environmental impact. Where actions result in changes to the EMS the process is managed through methods for change including related documented information and competence shall be updated as applicable and changes communicated to those involved. Actions taken to address nonconformities and incidents will be reviewed and effectiveness evaluated. Documented information will be retained and communicated, as appropriate (to workers and interested parties), as evidence of incidents and nonconformity nature, actions, consequences and effectiveness of implemented actions.

For incidents a similar process will be adopted, as for addressing nonconformities above, but with the following additions. In the first instance company reports shall be raised by the Site Manager or a responsible person and passed to the Environmental Compliance Manager in a timely manner. Further investigations may be required, to establish the underlying root cause of the incident and determine the need for corrective action, identifying opportunities for preventive action and continual improvement. Relevant risk assessments will be reviewed to ensure current and adequacy. Details of incidents shall be analysed and reported to the Senior Management on a regular basis. The Environmental Compliance Manager shall be responsible for notifying statutory bodies of any incidents where they fall under the Environmental Permit requirements.

Where a potential problem is identified but no actual nonconformity exists the process described above can be used to prevent a nonconformity from occurring.

Applicable procedures	MSP17	Nonconformity and Corrective Action
	MSP17.1	Injury and Incident Reporting
	MSP17.2	Injury and Incident Investigation
	MSP17.3	Near Miss Reporting

10.3. Continual Improvement

Fortis shall continually improve the suitability, adequacy and effectiveness of the Environmental Management System. Continual improvement is integral to enhancing environmental performance and is accomplished by providing an environment and promoting a culture for encouraging all employees to contribute and implement ideas for improvement, by the achievement of environmental objectives and enhanced environmental performance, and the communication of these results and successes to interested parties.

Opportunities for improvement shall be identified by the continual analysis and evaluation of our environmental performance and the results and outputs of our EMS processes. The management review process shall ensure direct involvement by the Senior Management in the evaluation and identification of needs and opportunities for continual improvement.

Data gathered during the ongoing program of monitoring of the EMS and following investigations into nonconformity and incidents shall be reviewed, analysed and can provide significant opportunities for improvement.

When continual improvement opportunities are identified they shall be evaluated to determine what actions shall be taken. These actions are to be planned and changes to the EMS implemented in a controlled manner, with the maintenance and retention of documented information as evidence of continual improvement, evidenced results and effectiveness evaluated.

Applicable procedures MSP18 Continual Improvement

APPENDIX 1 - Environmental Management System Procedure referred to in this manual

Procedure Ref.	Title
MSP01	Context of the Organisation
MSP02	Interested parties, Needs and Expectations
MSP03	Leadership and Commitment
MSP04	Organisation and Responsibilities
MSP05	Risk and Opportunity
MSP05.1	Compliance Obligations
MSP05.2	Environmental Aspects & Impacts
MSP05.3	Quality Plans
MSP06	Planning
MSP6.1	Change Assessment
MSP06.2	Risk Assessment
MSP06.3	COSHH Assessment
MSP06.4	Safe Systems of Work
MSP06.5	Occupational Health
MSP06.6	Legionella
MSP06.7	Leptospirosis
MSP06.8	Dust Management
MSP06.9	Noise Management
MSP06.10	Electrical Safety
MSP06.11	Structural safety of plant/buildings
MSP06.12	Geotechnical safety
MSP06.13	Site Welfare
MSP06.14	Storage Facilities (containers/ stores/fuel bowzers etc...)
MSP06.15	Traffic Management Plan
MSP06.16	Personal Protective Equipment
MSP06.17	Authorisations
MSP07	Resources
MSP07.1	Management of Contractors and External Providers
MSP08	Laboratory testing sampling procedure
MSP09	Competence Management
MSP09.1	Competence – Site training matrix
MSP09.2	Competence – Additional training
MSP09.3	Competence – New starters H&S requirements
MSP10	Communication
MSP10.1	Site Induction
MSP10.2	Site Safety Meetings
MSP10.3	Site Safety Representatives
MSP10.4	Toolbox Talks, Safety Alerts, Reminders and Briefings
MSP10.5	Site Safety Notice Boards
MSP11	Feedback & Complaints
MSP11.1	IBAA Sales
MSP11.2	Invoicing
MSP12	Documented information
MSP12.1	Documented information – Records
MSP13.1	Emergency Preparedness – Site Emergency Plans
MSP13.2	Public Relations - Following A Major Incident
MSP14	Monitoring, Measurement, Analysis and Evaluation
MSP14.1	Control of Monitoring and Measurement Devices
MSP14.2	Evaluation of Compliance
MSP15	Site Audits
MSP15.1	Site Systematic Inspection Schedule
MSP15.1-1	Work Equipment

MSP15.1-2	Isolation & Lock Off
MSP15.1-3	Permit to Work
MSP15.1-4	Guarding
MSP15.2	Directors Safety Visit
MSP16	Management Review
MSP16.1	Management Objectives
MSP17	Nonconformity and Corrective Action
MSP17.1	Injury and Incident Reporting
MSP17.2	Injury and Incident Investigation
MSP17.3	Near Miss Reporting
MSP18	Continual Improvement
MSP19	In House Water Content Testing Procedure
MSP20	Metals Recovery Testing Procedure
MSP21	Product Nonconformity, Corrective & Preventative Action
MSP22	Blank as Feb 2023
MSP23	IBA sieving Procedure
Site P's	Operational Controls



A303 IBA Recycling Facility Site Process Manual

Issue 12 – August 2025

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Amendments

Date	Amendment	Issue
3 Oct 18	Removal of associated procedures table – replaced with amendments table. Removed reference to non-conformance register within IBA controls	4
May 2019	Quality Technician included. Procedure references updated.	5
24 June 20	Removal of cherry picker from permanent hire. IBA storage changed to week received rather than week of production.	6
26 Jan 21	Removal of HL. Changes to site management. Incorporation of new issue type for non-conforming IBA on EQMS. Additional product specifications.	7
22 July 21	Inclusion of more detailed measures for preventing and controlling product NCRs	8
5 Sept 22	<i>Inclusion of measures for preventing and controlling product NCRs relating to hazardous status. Inclusion of the type 1 specification.</i>	9
11/07/2023	<i>Annual review</i>	10
14 th March 2024	<i>Annual Review and update of blending operations</i>	11
20 th August 2025	<i>Annual review and incorporation of new IBA processing plant and enhanced IBA recovery facility</i>	12

1 Introduction

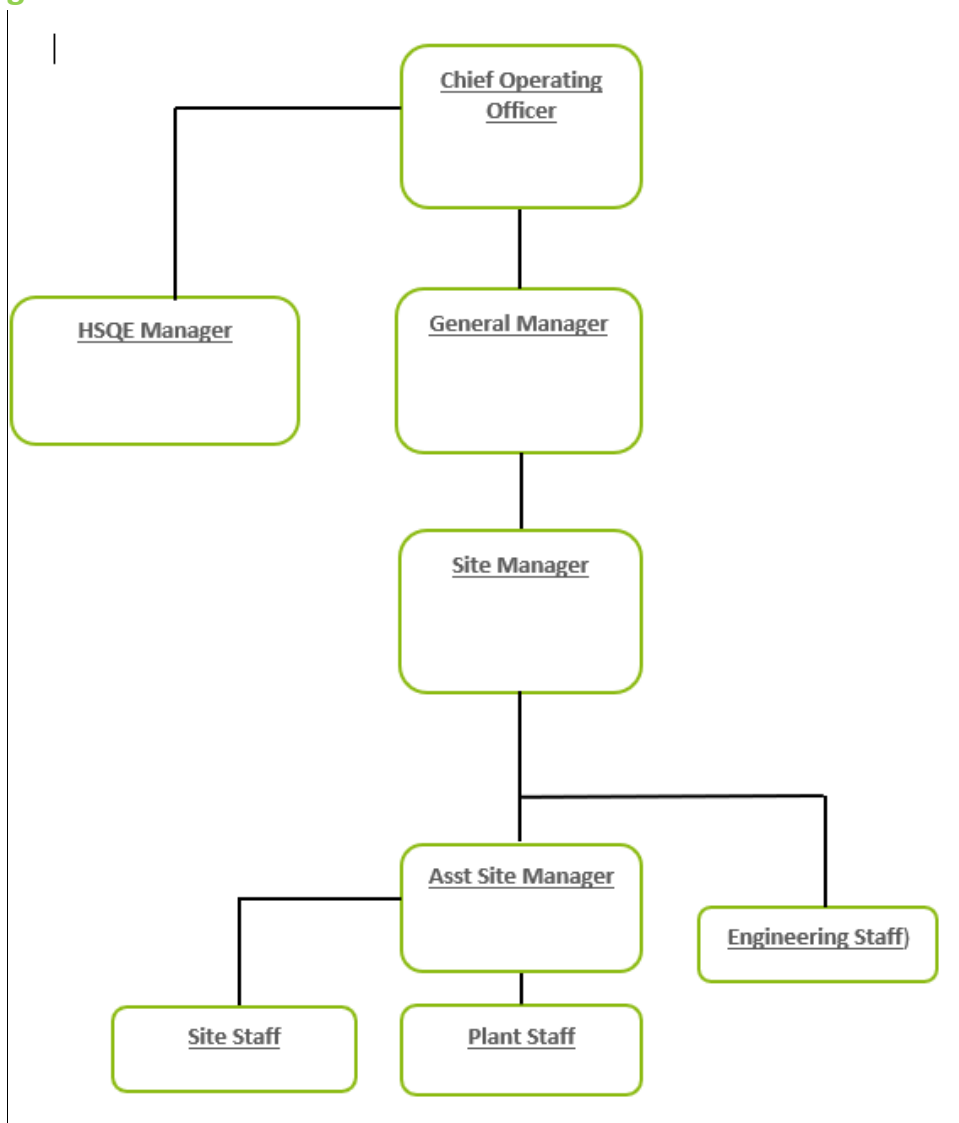
This document details the processes that take place at the A303 IBA recycling facility and the new enhanced IBA recovery facility and covers the Factory Process Control (FPC) requirements of the applicable statutory standards, specifications, codes of practice and legislation. The A303 IBA Recycling Facility operates to the permit issued by the Environment Agency (EA) and adheres to Hampshire County Council planning conditions. Incinerator Bottom Ash Aggregate (IBAA) is produced in accordance with recognised regional and national standards, and specifications. Through the implementation of this Site Process Manual (SPM), the regulatory requirements of Fortis, the A303 site and the quality assurance of produced materials, are maintained.

2 Organisation

2.1 Organisation Structure

The SPM is controlled by the HSQE Management Team and is operated on site by the General/Site Manager. The organisation chain is detailed below.

A303 Organisational Chart



2.2 Operational Responsibilities

In addition to the responsibilities listed in Organisation and Responsibilities (MSP04), the following SPM specific responsibilities are:

Site Manager:

- Operation of the QMS onsite.
- Control of site activities that may have an effect on quality including product compliance.
- Associated responsibilities listed within the quality procedures.

Assistant Site Manager:

- Operation of the QMS onsite in the absence of the management staff.
- Give support to the Site Manager in relation to activities that may have an effect on quality including product compliance.
- Associated responsibilities listed within the quality procedures.

Weighbridge Operator:

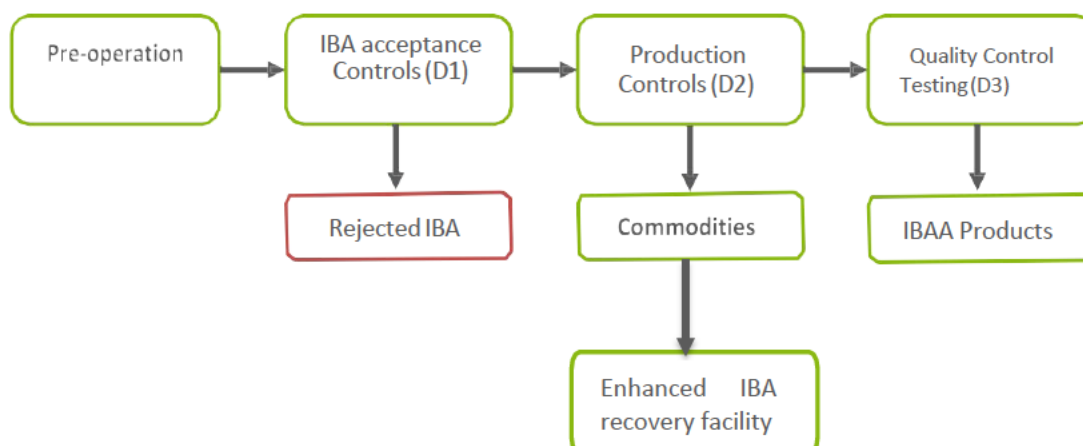
- Ensure that the correct information is printed on weighbridge tickets and weights are recorded properly.
- Vigilance in all activities that may affect quality.
- Associated responsibilities listed within the quality procedures.

Plant Operator/Site Operative:

- Vigilance in all activities that may affect quality.
- Associated responsibilities listed within the quality procedures.

3 The SPM/FPC Processes

The diagram below details the key parts of the SPM, which will be explained further in this document. These are key parts relating to various FPC requirements.



3.1 Pre-Operation

IBA (Incinerator Bottom Ash) is a waste product of the incineration of municipal (household) waste. Fortis receive IBA from multiple Energy Recovery Facility (ERF) sites (also known as Energy from Waste [EfW]). Once burnt, the ash is quenched in a lime based solution to cool and at some facilities large ferrous metals are extracted. Samples are taken by the ERF operator twice per month, in accordance with the ESA Protocol, to confirm the IBAs hazardous status. The IBA is then transported, from the ERF to the A303 site. Upon receipt the IBA is visually inspected for presence of unburnt waste. If significant amounts of unburnt waste are present Site Management are informed and the load may be rejected. Weekly monitoring of IBA from each source is undertaken to confirm compliance to contract specific moisture content requirements.

Acceptable IBA is identifiably stockpiled and recorded on the IBA stockpile record by Fortis. Fortis then awaits the result of the hazard classification testing and to start the aging process as detailed in the IBA Control Diagram (D1, section 3.2.1). The formal notifications of IBA hazard classification are received by the site management team and are stored in the site quality folder. and thus is approved for processing. Upon receipt of these results site management record on the IBA stockpile record that it is approved for processing. If IBA is classed as hazardous an issue is raised on EQMS for a non conforming material and the non conformance process is followed.

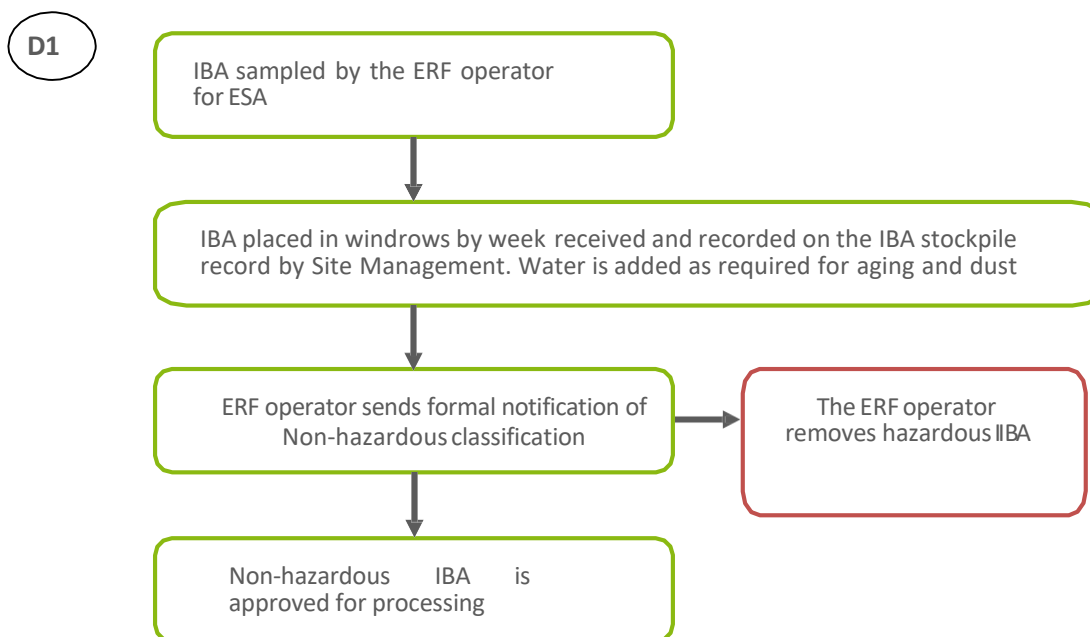
During the aging process the IBA stockpiles must be managed with regards to dust and odour. Water may be used for dust and odour suppression and should be monitored at least daily. Once notification is received that the IBA is characterized as non hazardous, it can be processed. If the IBA is deemed hazardous, it is quarantined by site staff and then disposed of by the ERF operator.

3.2 IBA Control

3.2.1 IBA Control (D1)

IBA is stockpiled in windrows, where it is “aged” in order to reduce the pH levels and allowed to dry to improve metal recovery when processing. “Aging” – a carbonation reaction requiring water and carbon-dioxide to be present and results in the reduction of pH levels and crystallisation of aluminium sulphate. The aging reaction may be expedited by adding water to the stockpile. Water may also be used as a dust suppressant. This process runs for a minimum of 6 weeks depending on stock levels.

The IBA Control Diagram (D1, below) describes the process controls in place during the aging of IBA.



3.2.2 IBA Control Plant

The IBA controls require various mobile plant and equipment in order to carry out the processes efficiently and effectively. The plant involved needs to be regularly checked and maintained, in an attempt to prevent breakdowns or contamination which would affect the quality of the IBAA or the ability to supply a contract. It is best practice, under the QMS, to have the plant serviced before its working hours are exceeded.

Plant	Role	Checks/Evidence
Excavator	Stockpiling and conditioning IBA to achieve a suitable moisture content for optimum processing and dust management.	Daily plant checks and service schedule
Loading Shovel	Feeding IBA into the plant, loading IBAA onto trucks for export	Daily plant checks and service schedule

IBA Material Checks

The initial check is the ESA Protocol testing carried out by the ERF operator. Upon receipt at Fortis, IBA is visually inspected by the loading shovel or excavator operators for unburnt waste and if present is removed and reported to the Site Management. Senior management may contact the ERF operator. Quantities of unburnt material are typically low and are removed and placed in a skip to be removed to the neighbouring Collards Facility. In cases where a substantial quantity of unburnt material is present in a load, a decision regarding disposal is agreed with the ERF operator and an issue for non-conforming material is raised on EQMS.

3.2.3 Potential IBA Non-conformances and Actions

There is a potential for non-conformances to occur at the IBA control stage. The table below describes the main potential non-conformances and the typical actions that may be taken to resolve them. In all cases, the senior managers and the HSQE Management must be informed, and the non-conformance must be logged.

Potential Non-conformance	Actions	Responsibility
Oil/fuel/liquid leak from plant	Implement necessary environmental processes.	Site Manager, site operatives.
Plant breakdown or damage	Fix or replace plant.	Site Manager.
Large pieces of metal	Assess size and remove from IBA.	Site Manager.
Large amounts of un-burnt material identified in IBA when visually inspected upon receipt	May sample for LOI/TOC testing, remove, quarantine. Senior management may inform the ERF operator if non-compliant.	Site operatives, Site Manager, senior management team.
Incorrect product received i.e. not IBA or IBA that has already been processed	Site Management to be informed and load potentially rejected. Senior management may inform the ERF.	Site operatives, Site Manager, Senior management team.
Asbestos identified in IBA when visually inspected upon receipt	Site Management to be informed and load rejected and / or quarantined. If unsure sample for asbestos testing, quarantine and inform Site Management. Senior management if Asbestos is confirmed as present may inform the ERF operator.	Site operatives, Site Manager, Senior management team.
Munitions identified in IBA when visually inspected upon receipt	Site Management to be informed and load rejected and / or quarantined and inform Site Management. Senior management may inform the ERF operator.	Site operatives, Site Manager, Senior management team.
IBA received having a very high water content i.e. water running off the IBA	Sample for water content testing and report to site management or reject load. Senior management may inform the ERF operator if the water content is >25%.	Site operatives, Site Manager, Senior management team
Hazardous IBA	Quarantine, inform and await instruction from the ERF operator.	Site Manager, senior management team

3.2.4 IBA Records

During IBA control there are a variety of records generated or used, that are applicable within the QMS, many of which form sections or processes within other company management systems. The QMS uses these records as evidence for compliance to the standard.

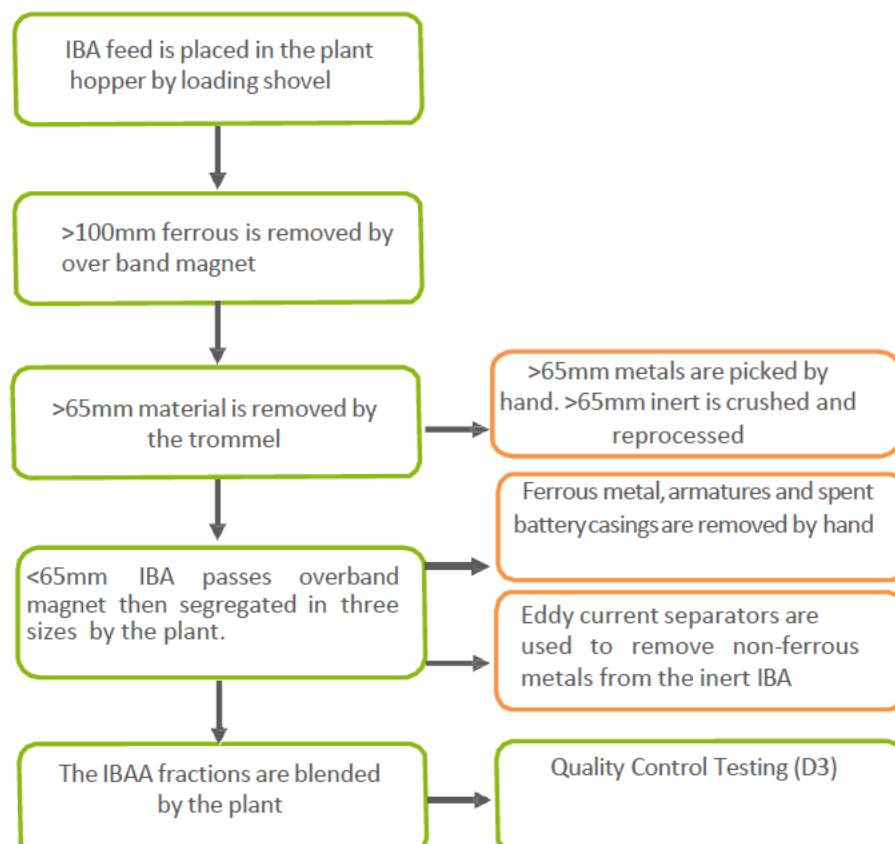
Record	System	Storage/Archive location
ESA test confirmation	QMS	Site Quality File
Daily plant check sheet	Plant	Fortis Filing System
Plant service schedule	Plant	Head office – Plant Administrator

3.3 IBAA Production Control

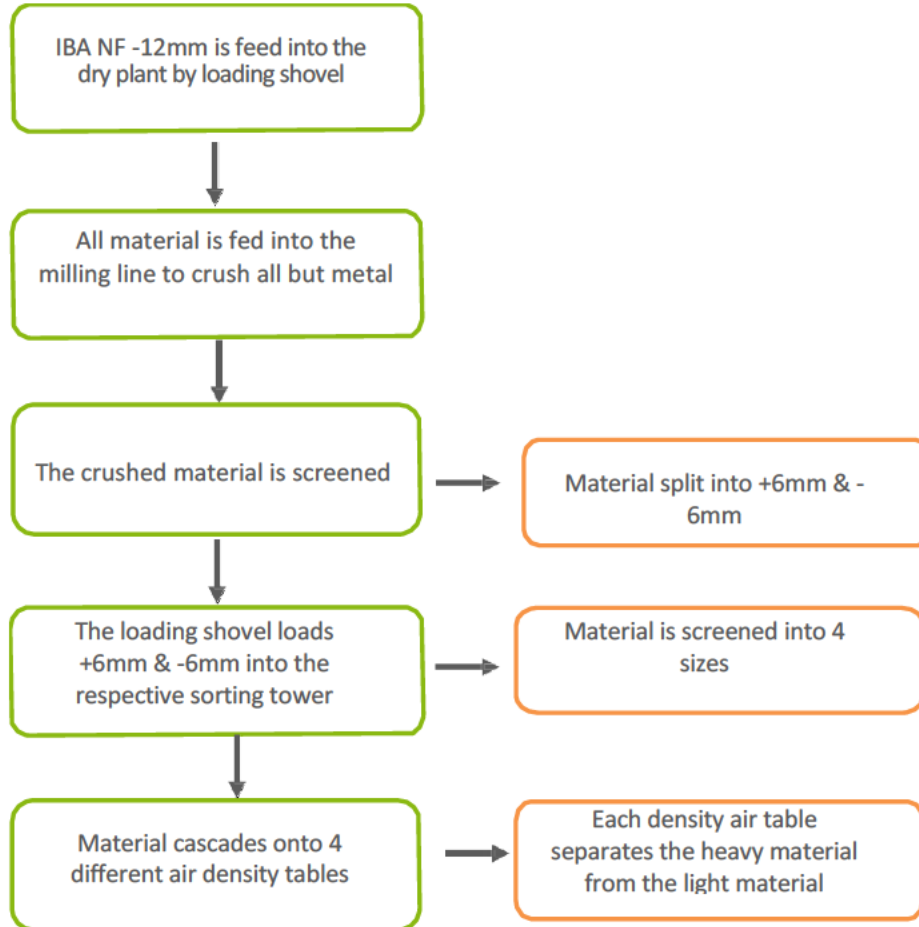
3.3.1 A303 Aggregate Production Control (D2)

The A303 processing plant produces one IBAA product, complying with multiple specifications (see 3.4.1), We also import limestone aggregates to blend with the IBAA to produce additional product specifications for use in the civil engineering industry. It also produces commodity wastes (metals) which are sent for further recovery. The A303 Aggregate Production Control Diagram (D2) describes the process that the IBA goes through, after passing the IBA Control (D1), to produce the IBAA products. D2.1 describes the enhanced IBA recovery process of the dry plant and D2.2 describes the enhanced IBA recovery process of the wet plant

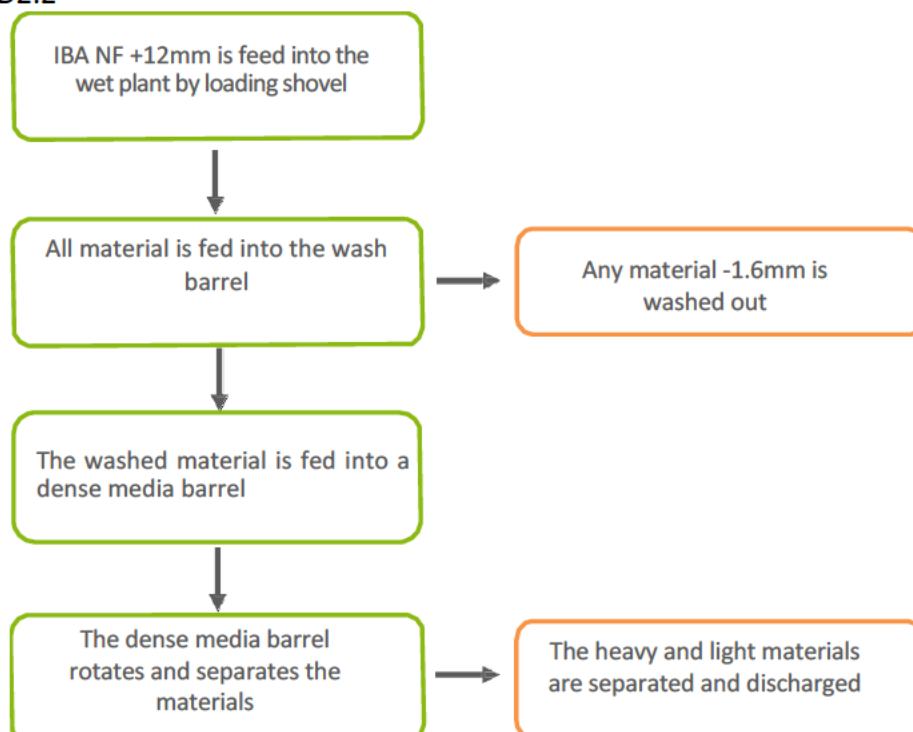
D2



D2.1



D2.2



3.3.2 Production Plant

The production controls require various plant and equipment in order to carry out the processes efficiently and effectively. The plant involved needs to be regularly checked and maintained, to prevent breakdowns or contamination which would affect the quality of the IBAA/commodities or the ability to supply a contract. It is best practice, under the QMS, to have the plant serviced before its working hours are exceeded.

Plant	Role	Checks/Evidence	Storage/Archive
IBA Processing Plant	Screening of IBA and the removal of metal constituents.	Daily plant checks	Site Plant Inspection Folder
Enhanced IBA recover facility Wet Plant	Screening and washing of IBA & non ferrous metals for the further removal of metal constituents.	Daily plant checks	Site Plant Inspection Folder
Enhanced IBA recover facility Dry Plant	Screening & milling of IBA & non ferrous metals for the further removal of metal constituents.	Daily plant checks	Site Plant Inspection Folder

3.3.3 Processed Material Checks

Processed IBAA should be visually checked by the loading shovel operator after processing. They will look for changes in the IBAA that may indicate problems with the plant. The processed IBAA fractions are blended together by the plant and undergo quality testing, following D3.

3.3.4 Potential Production Non-conformances and Actions

There is a potential for non-conformances to occur at the production stage. The table below describes the main potential non-conformances and the typical actions that may be taken to resolve them. In all cases, the senior managers and the HSQE Management must be informed, and the non-conformance must be logged.

Potential Non-conformance	Actions	Responsibility
Worn or broken screening deck	Stop plant. Replace screening deck.	Site Manager, site operative
Blocked screening deck	Stop plant. Clear the blockage.	Site Manager, site operative
Oil/fuel/liquid leak from plant	Implement necessary environmental processes. It may be necessary to clean down plant to prevent product contamination.	Site Manager, site operative
Plant breakdown or damage	Fix or replace plant.	Site Manager, senior management team
Blockage of chutes or transfer points	Stop plant. Clear the blockage.	Site Manager, site operative
Damage to splitter plates or splitter	Repair splitter plates and / or correct position	Site Manager, site operative
Build up of debris around the ECS belts	Stop plant. Clear debris.	Site Manager, site operative

Potential Non-conformance	Actions	Responsibility
Elevated amounts of metals in metal recovery testing 'waste' or increase in metals present during IBAA visual inspection	Investigate.	Site Manager, site operative
Plant operated without a 'picker'	Reprocess output generated.	Site Manager, site operative
Water not being sprayed onto the dry IBAA output in dryer weather	Fix the spraygun and add water to the effected IBAA stockpile if dry using the tractor and bowser.	Site Manager, site operative

3.3.5 Production Records

During production there are a variety of records generated or used, that are applicable within the QMS, many of which form sections or processes within other company management systems. The QMS uses these records as evidence for compliance to the standard.

Record	System/Form Number	Storage/Archive Location
Daily plant check sheet	Plant	Fortis Filing System/ IAuditor
Mobile plant service schedule	Plant Minder	Plant Minder
Production schedule	Plant	Fortis Filing System
Non-conformance	EQMS	EQMS

3.4 Products and Waste

3.4.1 Produced Products

The following products are produced at A303 through the processes described in section 3.3

Product	Storage/Archive Location
SHW Blend Series 800:sub-base Type 1 IBAA	Product Spec Sheet - EQMS
SHW Series 600:6F5 IBAA	Product Spec Sheet - EQMS
SHW Series 600: 6F4 IBAA	Product Spec Sheet - EQMS
Fortistone sub-base (Non RPS247)	Product Spec Sheet - EQMS
IBAA 1A Fill	Product Spec Sheet - EQMS

The IBAA is tested under the requirements of the relevant specifications listed above. The testing regime is explained in section 3.5.

3.4.2 Imported Products

Limestone is imported from a preferred supplier and product specification records are reviewed and maintained. Limestone is blended with IBAA as per the blending procedure.

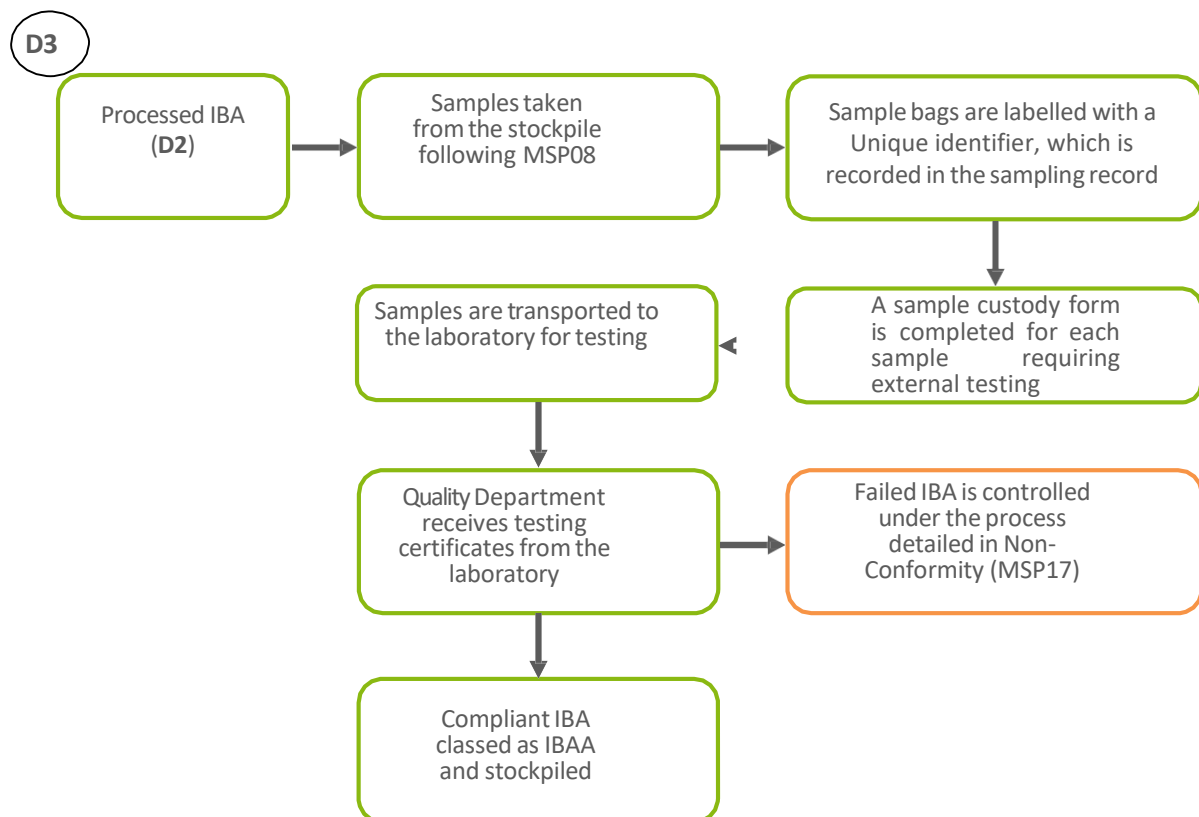
3.4.3 Disposal of Production Waste

Other than commodity metals; spent battery casings, motors and heavy non-metals are the main wastes removed during the IBAA production process. Spent batteries are blended into the ferrous metal which is collected by a specialist metals recycler to be safely recycled. The heavy non-metals are crushed and blended into the IBA plant feed. Non-ferrous metal commodities are collected by specialist metal recyclers depending on quantities and quality.

3.5 - Quality Control Testing

3.5.1 – Sampling and Testing Control (D3)

The processed IBAA undergoes a range of tests, after production, to ensure that it meets the relevant specifications. Information on product performance is made available on request. D3 describes the testing process.



3.5.2 Testing Regime

Under the product specifications and standards, the IBAA must undergo certain testing at set frequencies. It is widely agreed that for the purpose of quality testing, one week is equal to seven production days. A single production day is classed as a day when a period of production was underway (between 1 and 24 hours). Samples are tested at a, UKAS accredited, third party laboratory or may be tested in house if verification samples are tested by a UKAS accredited laboratory on a monthly basis. The testing regime for each product specification is included in the relevant Fortis product specification sheet.

3.5.3 Sampling

Samples of IBAA for testing are taken by trained site staff and in accordance with the Site Sample Record and Custody spreadsheet. Third party laboratory technical staff may attend site to take samples, in accordance with their own UKAS accredited procedures. *The stockpile must be prepared ready for dispatch prior to taking samples.*

3.5.4 Materials Laboratory

Fortis uses third party, UKAS accredited laboratories for all external IBAA testing. The test data is used for conformance and trend analysis. Selection of third party laboratories is controlled by External Providers (MSP07.1).

3.5.5 UKCA Marking

UKCA marking is not currently required for the specifications IBAA is produced to; however, product data sheets are made available to customers upon request. In some cases, test certificates will be supplied to customers, at the discretion of the Fortis technical staff.

3.5.6 Record Keeping

Records related to quality at A303 are:

Record	Minimum Time	Archive	Storage Location
Test Certificates	Duration of site operations		Fortis Filing System
Non-conformance Register	Duration of site operations		Fortis Filing System /EQMS
Sample Grading Records	Duration of site operations		GradLab and Fortis Filing

3.5.7 Product Non-conformance

Materials that do not conform to the required specification are controlled in accordance with Non Conformity (MSP07.1).

Potential Non-conformance	Potential Actions	Responsibility
Grading failure	<i>Check consistency of blending and water content.</i> Retest. Too fine – Blend with coarser material then retest. Too coarse – Blend with finer material	Quality Department, Technical Support, Site Manager, Shovel Driver
pH Failure	<i>Blend stockpile.</i> Retest. Review stockpile plan for aging times. Add more water to the stockpile.	Quality Department, Technical Support, Site Manager, Shovel Driver

Potential Non-conformance	Potential Actions	Responsibility
Water Content Failure	<i>Check consistency of blending.</i> Retest. Too dry – Add more water/ mix with wetter material then then retest. Too wet – Blend with dryer material then retest.	T&E Department, Technical Support, Site Manager, Shovel Driver
Hazardous WM3	<i>Check consistency of blending and water content.</i>	T&E Department, Technical Support, Site Manager, Shovel Driver
Other Testing Failures	Retest. Investigate.	T&E Department

4 Handling and Storage

4.1 Handling Aggregates

When mobile plant switches between handling unprocessed and processed materials, the operator must ensure that the bucket is clean after handling each material, in order to reduce the risk of contamination.

4.2 Storage

IBA, IBAA, Limestone and commodity metals must be stored in isolated stockpiles in order to prevent contamination of the products. The faces of the stockpiles should be maintained in a way that makes them un-attractive nesting sites for animals. This will reduce the risk of supply failure and will aid the preservation of the products and commodities.

4.3 Transportation of Products and Customer Handling

Hauliers authorised by Fortis, their marketing partners or commodity customers are used to transport products and commodities to customers. Loads are transported by tipper lorry, grab lorry or artic and must be sheeted at all times, except for loading or unloading.

4.4 Weighbridge

Weights of products and commodities entering and leaving A303 site are weighed by the Collards site's weighbridge, which is controlled in accordance with the Performance Evaluation Register (MSF1.10). Details of the materials, weights and customer are printed onto a weighbridge ticket and recorded within the quarry minder database. This data is available to staff, should it be required for a customer query. To comply with the Weights and Measures Act 1985, the weighbridge is calibrated annually. A copy of the certificate is stored in the site file.

4.5 Infrastructure

In addition to the plant detailed within this document, the following infrastructure aspects are required for the efficient running of the quality management system on-site.

- Calibrated weighbridge
- Site office
- Welfare facilities
- Computer hardware and software
- Haul roads and access
- Operational dust suppression
- Operational dust monitoring (in accordance with the MOU)
- Operational weather monitoring station

5 Training of Personnel

Site personnel training is managed centrally using a site specific training matrix, which is held by the Site/Unit Manager. Records of personnel training and competency are kept in the company personnel filing system. Site plant operators are deemed competent to operate plant on site, providing they hold the minimum of an in-house competency ticket for the particular machinery. Where possible, any training should be external and certificated. Quality Department training is managed using the HSQE training matrix held in the HSQE file.

6 Contractors

On site plant maintenance contractors are currently used to provide instant plant maintenance and repairs to the fixed plant. Contractors are not routinely used for plant operation at A303. Occasionally mobile plant maintenance, dust suppression, grounds maintenance and security infrastructure contractors attend site. When they are required, the selection and operation of contractors is controlled by External Providers (MSP07.1).

7 External Property

The table below details the externally owned property that is permanently or occasionally on site, the level of access Fortis staff have to it and the responsibilities Fortis has for it.

Property	Ownership	Access	Responsibility
Hired mobile plant	Various	Trained persons	Full responsibility for operating and safeguarding

Fortis is insured to control, store and use externally owned mobile plant and equipment. In the event that externally owned property is damaged or destroyed, the Site Manager will inform the owner and initiate insurance procedures if necessary.

8 **Change**

When changes to the processes on site are proposed, they must be managed in accordance with the Change Assessment (MSP06.1) procedure.

APPENDIX 10

Technically Competent Management



Qualification Title:

**WAMITAB Level 4 Medium Risk Operator Competence for
Non-Hazardous Waste Treatment and Transfer**

Qualification Accreditation Number:

601/8528/4

This Certificate is awarded to

WAYNE READ

Verification date: 10/04/2019

Authorised:

Chris James
WAMITAB Chief Executive Officer

Learner ID: 105753

Certificate No.: 5142589

Date of Issue: 10/04/2019



Regulated by

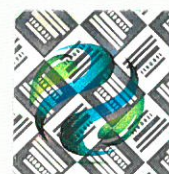
Ofqual

For more information see <http://register.ofqual.gov.uk>

Corff dyfarnu cydnabyddedig



Recognised awarding body



The qualifications regulators logos on this certificate indicate that the qualification is accredited only for England, Wales and Northern Ireland. Qualifications Wales regulates this qualification where it is awarded to learners assessed wholly or mainly in Wales.

00144611



Credit certificate
This certificate determines credit awarded to:
WAYNE READ

Units gained:

		Credit Value	Credit Level
A/508/0756	Maintain health and safety in the waste resource management industry	4	L4
F/508/0757	Manage the environmental impact of work activities	3	L4
F/508/0760	Manage the movement, sorting and storage of waste	5	L4
J/508/0887	Manage the reception of non-hazardous waste	6	L3
K/508/0980	Manage transfer and disposal from non-hazardous waste treatment and recovery operations	8	L4
M/508/0995	Manage site operations for the treatment of non-hazardous waste	8	L4

Verification date: 10/04/2019

Authorised:

Chris James
WAMITAB Chief Executive Officer

Learner ID: 105753

Certificate No.: 5142589

Date of Issue: 10/04/2019



The qualifications regulators logos on this certificate indicate that the qualification is accredited only for England, Wales and Northern Ireland. Qualifications Wales regulates this qualification where it is awarded to learners assessed wholly or mainly in Wales.



00144612



Operator Competence Certificate

Title:

Non-Hazardous Waste Treatment and Transfer

This Certificate is awarded to

WAYNE READ

Verification date: 10/04/2019

Authorised:

Learner ID: 105753

Certificate No.: 5142589

Date of Issue: 10/04/2019

WAMITAB Chief Executive Officer

CIWM Executive Director



The Chartered Institution
of Wastes Management

This certificate is jointly awarded by WAMITAB and the Chartered Institution of Wastes Management (CIWM) and provides evidence to meet the Operator Competence requirements of the Environmental Permitting (EP) Regulations, which came into force on 6 April 2008.



00144613

Continuing Competence Certificate

This certificate confirms that

Wayne Read

Has met the relevant requirements of the Continuing Competence scheme for the following award(s) which will remain current for two years from 21/06/2024

TSNH	Transfer - Non Hazardous Waste
TMNH	Treatment - Non Hazardous Waste

Expiry Date:
21/06/2026

Verification date: 19/06/2024

Authorised:



Responsible Officer

Learner ID: 105753

Certificate No.: 5255825

Date of Issue: 21/06/2024



CIWM Chief Executive Officer



The Chartered Institution
of Wastes Management



APPENDIX 11

Dust Assessment

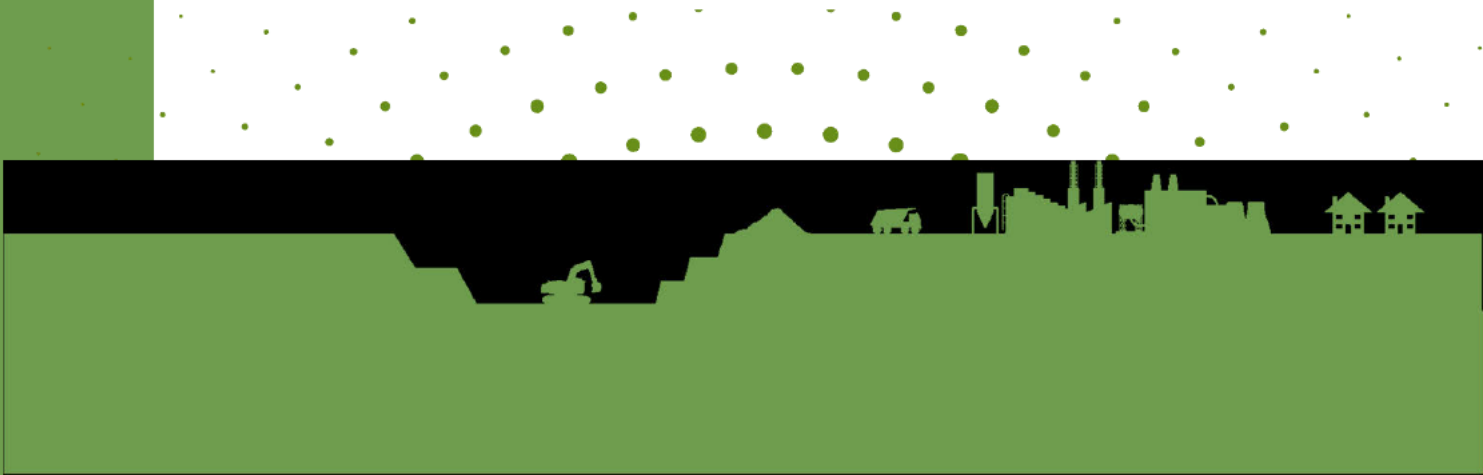


Dust Assessment

Proposal to replant and extend the existing
IBA processing plant at the A303 Enviropark

July, 2025

Fortis IBA Ltd



Document Control Sheet

Project Information

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C	17/07/2025	Holly Hope	Andrew Green	Andrew Green	Final

Distribution

Organisation	Contact	Date of Issue	Copies
Fortis IBA Ltd	Lauren Tuffin	17/07/2025	01

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This report may include data obtained from trusted third party consultants/laboratories that have been supplied to us in good faith. Whilst we do everything we can to ensure the quality of all the data we use, we cannot be held responsible for the accuracy or integrity of third party data.

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Dust Assessment
Proposal to replant and extend the existing IBA processing plant
at the A303 Enviropark
July 2025

Web: www.DustScan.co.uk

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1 Introduction

1.1 Overview

Fortis IBA Ltd is seeking planning permission for the proposed replacement, upgrade and extension of the existing Incinerator Bottom Ash recycling plant at the A303 Enviropark. This includes an extension to the existing site to accommodate the construction and operation of an enhanced IBA Recovery Facility.

The proposed replacement and upgraded processing plant ('replant') will incorporate advance technologies, such as an increased number of screening units to maximise metals recovery which will improve the quality of IBA Aggregate (IBAA). The proposed enhanced IBA recovery facility will further refine the non-ferrous fraction to maximise IBA recovery.

The current planning permission allows for up to 180,000 tonnes per annum (tpa) of IBA importation to site for processing. The proposed enhanced IBA recovery facility will process a maximum of 50,000 tpa, with the majority being imported from Fortis' other sites. Based on the proposal to increase the annual permitted imports to 220,280 tonnes, the additional imported IBA for recovery and associated metals exported will generate an additional 13 lorry loads daily (26 lorry in/out movements). The site is located within the jurisdiction of Test Valley Borough Council (TVBC) and lies outside of any Air Quality Management Areas (AQMAs).

There is no standard method for carrying out dust assessments for recycling plants. In the absence of such specific guidance, this report has been prepared with reference to guidance prepared by the Institute of Air Quality Management (IAQM) relating to the assessment of dust impacts from both construction and demolition activities¹, and from the operation of mineral sites². Guidance prepared by the IAQM and Environmental Protection UK (EPUK) relating to air quality in a planning context has also been referred to³, alongside the National Planning Policy Framework (NPPF) and associated Planning Practice Guidance (PPG) relating to air quality⁴.

1.1.1 Statement of Expertise

Holly Hope is a graduate consultant at DustScanAQ, with a focus on dust, air quality, and odour. She has a first-class BSc. in Environmental Science from Manchester Metropolitan University and is an associate member of the Institute of Environmental Sciences (IES).

Daniel Quinn is a Principal Consultant at DustScanAQ. He has a B.A. in Earth Sciences and an MSc. in Quaternary Sciences. As a result of his geological background, Daniel has a particular focus on the minerals sector and has been preparing dust assessments for minerals and recycling sites for more than eight years. He holds numerous relevant

¹ Institute of Air Quality Management (2016). Assessment of Dust from Demolition and Construction 2024 (v2.2)

² Institute of Air Quality Management (2016). *Guidance on the Assessment of Mineral Dust Impacts for Planning* (v1.1)

³ Environmental Protection UK and the Institute of Air Quality Management (2017). *Land-Use Planning & Development Control: Planning for Air Quality* (v1.2)

⁴ Ministry of Housing, Community & Local Government (2014). *Guidance: Air Quality*. Available at <http://planningguidance.planningportal.gov.uk/blog/guidance/air-quality/>

professional qualifications, including full membership to both the Institute of Air Quality Management (IAQM) and the Institute of Environmental Sciences (IES).

1.2 Objective

The objective of the assessment is to consider potential impacts to air in relation to the pollutants identified below, and potentially arising from both the construction and operation of the proposed development.

1.3 Key pollutants

The assessment considers impacts from ‘disamenity’ (or ‘nuisance’) dust, associated with annoyance. Although there are no standards (such as AQO) for dust disamenity or annoyance, various ‘custom and practice’ criteria have become established.

The assessment also considers impacts to air in relation to the national Air Quality Objectives (AQO) for PM₁₀ (essentially particles less than 10 µm (micron) aerodynamic diameter), and PM_{2.5} (essentially particles less than 2.5 µm aerodynamic diameter).

1.3.1 Nitrogen Dioxide (NO₂)

NO₂ and nitric oxide (NO) are collectively referred to as oxides of nitrogen (NO_x). During fuel combustion, atmospheric nitrogen combines with oxygen to form NO, which is not considered harmful. Through a chemical reaction with ozone (O₃), NO further combines with oxygen to create NO₂ which is harmful to human health and vegetation. The foremost sources of NO₂ in the UK are combustion activities, mainly road transport and power generation.

1.3.2 Particulate matter

Particulate matter as a term refers to a mixture of solid particles and liquid droplets suspended in the air (i.e. everything in the air that is not a gas). These particles come in many sizes and shapes and can be made up of hundreds of different chemicals. Some particles, such as dust, dirt, soot or smoke, are large or dark enough to be seen with the naked eye. Others can be so small that they can only be detected using an electron microscope. For the purposes of understanding the effects of air pollution on human health, two size fractions of particulate matter have been the subject of scientific research for many decades and are referred to as PM₁₀ and PM_{2.5}. Particulate matter with an average aerodynamic diameter of less than 10 microns (µm), is referred to as PM₁₀. PM_{2.5} is a small sub-fraction of PM₁₀ and comprises the particles which have an average aerodynamic diameter of less than 2.5 microns (µm). These size fractions are defined in law. Epidemiological studies have found that PM_{2.5} is more strongly linked to adverse health effects than PM₁₀. The biggest⁵ impact of particulate air pollution on public health is understood to be from long-term exposure to PM_{2.5}, which increases the age-specific mortality risk, particularly from cardiovascular causes.

PM₁₀ is known to arise from a number of sources such as construction sites, road traffic movement, industrial and agricultural activities. PM_{2.5} is known to be associated with

⁵ Defra FAQ 141 – Sources and Effects of PM_{2.5} (accessed 21/06/23)

pollutants such as ammonia (NH₃), oxides of nitrogen (NO_x) and sulphur dioxide (SO₂) emitted from power plants, industrial installations and road transport sources.

PM_{2.5} is associated more with combustion and traffic sources and also has a 'secondary' component (i.e. particles formed by chemical reactions in the atmosphere).

1.3.3 Disamenity dust

'Dust' is generally regarded as particulate matter up to 75 µm in diameter and in an environmental context can be considered in two size categories; coarser dust (particles greater than 10 µm) and fine particulate matter (PM₁₀ and PM_{2.5}) as described above.

Coarser dust (particles greater than 10 µm) is generally regarded as 'disamenity dust' and can be associated with annoyance, although there are no official standards for dust annoyance⁶. Disamenity dust is more readily described than defined as it relates to the visual impact of short-lived dust clouds and the long-term soiling of surfaces.

Although it is a widespread environmental phenomenon, dust is also generated through many anthropogenic activities including materials handling, demolition, construction, vehicle use, arable farming and numerous industrial processes. Dust is generally produced by mechanical action on materials and is carried by moving air when there is sufficient energy in the airstream. Dust is removed through gravitational settling (sedimentation), washout (for example during rainfall or by wetting) and by impaction on surfaces (e.g. on vegetative screening). Dust can be re-suspended where conditions allow, such as from bare ground. More energy is required for dust to become airborne than for it to remain suspended.

1.4 Site setting and existing operations

The proposal is located on a portion of land within the existing site and the proposed extension area adjoining the eastern boundary. The proposed development is approximately 1.8 km north of the village of Barton Stacey, 1.9 km southeast of the village Longparish and 8 km southeast of the town of Andover.

Adjacent and to the north of the Enviropark is a solar farm, to the east a shooting school and gas pipeline service station. To the south-east is a go-karting club, and to the south there is open space controlled by the Ministry of Defence (MoD) which is bordered by the A303, with further MoD controlled land to the west of the site.

Barton Stacey service station is located approximately 600 metres to the south-west of the existing site on the westbound carriageway of the A303. The site includes a petrol station, a hotel and a small number of chalet-style residential properties. The next closest residential property is Owls Lodge Farm, located approximately 1000 m (1 km) to the northwest of the site. The site and surrounding area within 250 m do not contain any SSSI, SAC, SPRA or Local Wildlife Site designations.

⁶ Note that the expression 'nuisance dust' refers here to 'generally visible particulate matter' rather than specifically and in a legal sense to statutory nuisance, as defined in Section 79 of the Environmental Protection Act 1990.



Figure 1.1: Site location, including proposed development area

1.5 Proposed development

Full details of the proposed development are set out in the Planning Statement, but in summary the applications seek permission to replace the existing plant and extend the current IBA site to accommodate an additional plant to further improve the process. The proposed replacement plant will be relocated onsite, to provide sufficient area for the existing site operations to continue whilst the new plant is being constructed.

The replacement plant layout is more compact and designed to maximise energy efficiency and optimise metal recovery. The replacement plant will be enclosed within one building to improve air quality management. The enhanced IBA recovery plant will take place in a fully enclosed building, comprising of a material receipt, storage area and dry and wet separation plants. Additionally, the enhanced IBA recovery Facility will be fitted with appropriate dust management systems, including a Local Exhaust Ventilation (LEV) system.

Based on the proposal to increase the annual permitted tonnage to 220,280 tonnes, the additional imported IBA for recovery and associated metals exported will generate an additional 13 lorry loads daily (26 lorry in/out movements). No heavy goods vehicles shall enter or leave the site except between 07:00 – 20:00 Monday to Friday and 07:00 – 14:00 Saturday. No Incinerator Bottom Ash plant or machinery shall be operated except between 06:00 – 20:00 Monday to Friday and 06:00 – 14:00 Saturday. There shall be no working on Sundays.

2 Legislation, policy and non-statutory guidance

2.1 Legislative Framework

2.1.1 International Legislation (European Union)

Whilst the UK has left the European Union (EU), it is relevant to understand the source of the current UK legislation. Following exit day on the 31st January 2020, the current framework of air quality legislation was converted into domestic law through the European Union (Withdrawal) Act 2018⁷. The EU sets legally binding limit values for outdoor air pollutants to be met by EU countries by a given date. These limit values are based on the World Health Organisation (WHO) guidelines on outdoor air pollutants. These are legally binding and set out to protect human health and the environment by avoiding, preventing or reducing harmful air pollution effects.

Directive 2008/50/EC⁸ on ambient air quality and cleaner air for Europe entered into force in June 2008. This merged the existing 'Daughter' Directives^{9,10,11,12} (apart from the fourth Daughter Directive), maintaining existing air quality objectives set out by 'Daughter' Directives for:

- Sulphur dioxide (SO₂);
- Nitrogen dioxide (NO₂);
- Oxides of nitrogen (NO_x);
- Particulate matter (PM_{2.5} and PM₁₀);
- Lead (Pb);
- Benzene(C₆H₆);
- Carbon monoxide (CO); and
- Ozone (O₃).

Directive 2008/50/EC also includes related objectives, exposure concentration obligations and exposure reduction targets for PM_{2.5} (fine particles). The 'Daughter' Directives were based upon requirements set out in the first EU Ambient Air Quality Framework Directive 96/92/EEC¹³.

⁷ European Union. (2018): <http://www.legislation.gov.uk/ukpga/2018/16/contents/enacted>

⁸ European Union. (2008), 'Ambient air quality assessment management', Framework Directive 2008/50/EC.

⁹ European Union. (1999), 'Ambient air quality assessment management', Framework Directive 1999/30/EC.

¹⁰ European Union. (2000), 'Ambient air quality assessment management', Framework Directive 2000/3/EC.

¹¹ European Union. (2002), 'Ambient air quality assessment management', Framework Directive 2002/3/EC.

¹² European Union. (2004), 'Ambient air quality assessment management', Framework Directive 2004/107/EC.

¹³ European Union. (1996), 'Ambient air quality assessment management', Framework Directive 96/62/EC.

2.1.2 National Legislation (UK)

2.1.2.1 The Environment Act (1995)

The Environment Act 1995¹⁴ established the system of 'local air quality management' (LAQM) and the designation of Air Quality Management Areas (AQMAs). Part IV of the 1995 Environmental Act and Part II of the Environment (Northern Ireland) Order 2002¹⁵ requires local authorities to designate AQMAs where legal objectives are not being achieved or are not likely to be achieved within the relevant period. Where an AQMA is designated, local authorities are also required to produce an 'Air Quality Action Plan' (AQAP) detailing the pollution reduction measures that need to be adopted to achieve the relevant air quality objectives within an AQMA.

The Environment Act 1995 required the Government to produce a National Air Quality Strategy (NAQS) for the UK, outlining the air quality standards, objectives and measures for improving ambient air quality.

2.1.2.2 National Air Quality Strategy (UK)

Following the Environment Act 1995, the first Air Quality Strategy (AQS) was published in 1997¹⁶. The latest comprehensive review of the AQS, Air Quality Strategy for England, Scotland, Wales and Northern Ireland, was published in 2007¹⁷, with a review yielding some minor changes in 2011. Each revision introduced strategies and regulations that consider measures for different pollutants by tightening existing objectives and also by introducing new ones to establish a common framework to protect human health and the environment by achieving ambient air quality improvements.

The AQS sets clear, measurable, outdoor air quality standards and target dates by which these must be achieved; the combined standard and target date is referred to as the Air Quality Objective (AQO) for that pollutant. Adopted national standards are based on the recommendations of the Expert Panel on Air Quality Standards (EPAQS) and have been translated into a set of Statutory Objectives within the Air Quality (England) Regulations (2000) SI 928, and subsequent amendments.

2.1.2.3 Air Quality Standards (Amendment) Regulations (2016)

The Air Quality Standards (Amendment) Regulations 2016¹⁸ simplified air quality regulation, providing a new transposition of the 2008 EU ambient air quality directive, 2005/50/EC, also incorporated the fourth EU Daughter Directive (2004/107/EC). The Air Quality Limit Values from the EU directives are transposed as Air Quality Standards.

¹⁴ Parliament of the United Kingdom. (1995), 'Environment Act'. King's Printer of Acts of Parliament

¹⁵ Northern Ireland Orders in Council. (2002), 'The Environment (Northern Ireland) Order', No. 3153. King's Printer of Acts of Parliament

¹⁶ Department for Environment Food and Rural Affairs. (1997), 'The United Kingdom National Air Quality Strategy', Cm 3587, Department for Environment Food and Rural Affairs.

¹⁷ Department for Environment Food and Rural Affairs. (2007), 'The Air Quality Strategy for England, Scotland, Wales and Northern Ireland', Cm 7169, Department for Environment Food and Rural Affairs.

¹⁸ Statutory Instrument. (2016), 'The Air Quality Standards Regulations', No. 1184. King's Printer of Acts of Parliament.

2.1.2.4 The Environment Act (2021)

Under the Environment Act 2021¹⁹, the Secretary of State must review the NAQS for England at least every five years, with a commitment for an initial review within 12 months of the measures coming into force: the first review will be published in 2023. The Environment Act 2021 also introduced a commitment to create a legally binding duty on government to reduce the concentration of fine particles (PM_{2.5}) in ambient air and to set a new long-term annual mean PM_{2.5} target to supersede the target set out within the Environment (Miscellaneous Amendments) (EU Exit) regulations 2020.

2.1.2.5 The Environmental Targets (Fine Particulate Matter) (England)

Regulations (2023)

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023²⁰ came into force in January 2023. This includes a new annual mean concentration target of less than or equal to 10 µg/m³ for PM_{2.5} by 31st December 2040. There is also an exposure reduction target; the population exposure reduction target is at least a 35% reduction in population exposure by the end of 31st December 2040, compared to a three-year baseline period from 1st January 2016 to 31st December 2018. In its guidance²¹ on local action to reduce PM_{2.5}, Defra states that: “As well as meeting local objectives, local authorities play a role in contributing to national targets. The government recognises that as a regional pollutant, many of the sources of PM_{2.5} are outside of local authority control. However, there are sources of PM_{2.5} over which local authorities do have control. Therefore, while PM_{2.5} is not currently part of the Local Air Quality Management framework, the government still expects all local authorities to effectively use their powers to reduce PM_{2.5} emissions from the sources which are within their control.”

2.1.2.6 National Air Quality Objectives

A summary of the relevant Air Quality Objectives (AQOs), including those deriving from the new Environmental Targets (Fine Particulate Matter) (England) Regulations (2023), is set out in Table 2.1. The AQO listed in Table 2.1 are only applicable at locations where a member of the public could be reasonably expected to spend the relevant averaging period. Further examples of this are presented in Table 2.2.

Table 2.1: AQO relevant to the proposed development

Pollutant	Averaging Period	AQO (µg/m ³)	Exceedance Allowance	Percentile Equivalent
Nitrogen Dioxide (NO ₂)	Annual	40	-	-
	1-hour	200	18 per annum	99.8 th
Particulate Matter (as PM ₁₀)	Annual	40	-	-
	24-hour	50	35 per annum	90.4 th

¹⁹ Parliament of the United Kingdom. (2021), ‘Environment Act’. King’s Printer of Acts of Parliament

²⁰ Statutory Instrument. (2023), ‘The Environmental Targets (Fine Particulate Matter) (England) Regulations’, No. 96. King’s Printer of Acts of Parliament.

²¹ <https://www.gov.uk/government/publications/the-air-quality-strategy-for-england/air-quality-strategy-framework-for-local-authority-delivery> accessed 21/07/23.

Pollutant	Averaging Period	AQO ($\mu\text{g}/\text{m}^3$)	Exceedance Allowance	Percentile Equivalent
Particulate Matter (as $\text{PM}_{2.5}$)	Annual	10 ^a	-	-
(a) The annual mean concentration target is that by the end of 31st December 2040 the annual mean level of $\text{PM}_{2.5}$ in ambient air must be equal to or less than 10 $\mu\text{g}/\text{m}^3$ ("the target level").				

Table 2.2: Examples of where the AQO should apply

Averaging period	Objectives should apply at	Objectives should not apply at
Annual	All locations where members of the public might be regularly exposed. Building façades of residential properties, schools, hospitals, care homes etc.	Building façades of offices or other places of work where members of the public do not have regular access. Hotels, unless people live there as their permanent residence. Gardens of residential properties. Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short-term.
24 Hour	All locations where the annual mean objective would apply, together with hotels and gardens of residential properties ^(a) .	Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short-term.
1 Hour	All locations where the annual mean and 24 and 8-hour mean objectives apply. Kerbside sites (for example, pavements of busy shopping streets). Those parts of car parks, bus stations and railway stations etc. which are not fully enclosed, where members of the public might reasonably be expected to spend one hour or more. Any outdoor locations where members of the public might reasonably have expected to spend one hour or longer.	Kerbside sites where the public would not be expected to have regular access.

2.1.2.7 Statutory Nuisance

It is recognised that the planning system presents a way of protecting amenity. However, in cases where planning conditions are not applicable to a development/installation, the requirements of the Environmental Protection Act 1990 still apply. Under Part III of the Environmental Protection Act 1990, local authorities have a statutory duty to investigate any complaints of:

- *“any premises in such a state as to be prejudicial to health or a nuisance*
- *smoke emitted from premises so as to be prejudicial to health or a nuisance*
- *fumes or gases emitted from premises so as to be prejudicial to health or a nuisance*
- *any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance*
- *any accumulation or deposit which is prejudicial to health or a nuisance”*

Where the local authority establishes any one of these issues constitutes a statutory nuisance and believes it to be unreasonably interfering with the use or enjoyment of someone’s premises and/or is prejudicial to health, an abatement notice will be served on the person responsible for the offence or the owner / occupier. Failure to comply with the notice could lead to a prosecution. However, it is considered as a defence if the best practicable means to prevent or to counteract the effects of the nuisance are employed.

2.2 Planning Policy

2.2.1 National Policy

2.2.1.1 National Planning Policy Framework (2024)

The principle national planning policy framework in respect to the proposed development is the National Planning Policy Framework (NPPF)²². This sets out the government’s planning policies for England and how they should be applied. The revised NPPF was published in December 2024, and amended in February 2025, by the Department for Communities and Local Government (DCLG).

The NPPF 2024 contains five paragraphs which are relevant to air quality.

Paragraph 110 states that:

“The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural

²² National Planning Policy Framework. Accessible at:
<https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf>

areas, and this should be taken into account in both plan-making and decision-making.”

Paragraph 187 (e) states that:

“Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans...”

Paragraph 198 includes:

“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.”

Paragraph 199 states that:

“Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.”

Paragraph 201 states that:

“The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.”

2.2.1.2 National Planning Practice Guidance

The DCLG published a number of supporting web-based resources of Planning Practice Guidance (PPG)²³ to supplement the NPPF. With respect to air quality the PPG²⁴ provides guidance on when air quality is relevant to a planning application. It states that:

“Whether air quality is relevant to a planning decision will depend on the proposed development and its location. Concerns could arise if the development is likely to have an adverse effect on air quality in areas where it is already known to be poor, particularly if it could affect the implementation of air quality strategies and action plans and/or breach legal obligations (including those relating to the conservation of habitats and species). Air quality may also be a material consideration if the proposed development would be particularly sensitive to poor air quality in its vicinity.”

The PPG also states that, when deciding whether air quality is relevant to a planning application, the applicant should consider whether the proposal will:

- *“Lead to changes (including any potential reductions) in vehicle-related emissions in the immediate vicinity of the proposed development or further afield...”*
- *Introduce new point sources of air pollution...,*
- *Expose people to harmful concentrations of air pollutants ...,*
- *Give rise to potentially unacceptable impact (such as dust) during construction for nearby sensitive locations...,*
- *Have a potential adverse effect on biodiversity, especially where it would affect sites designated for their biodiversity value.”*

2.2.1.3 Clean Air Strategy (2019)

The Clean Air Strategy²⁵ was published by the Department of Environment Food and Rural Affairs (DEFRA) in 2019 as part of the 25 Year Environment Plan. It also complements the Industrial Strategy and the Clean Growth Strategy. The Strategy sets out the action that is required across governments and society to meet the AQOs. Action includes new legislation to create a more coherent framework for action to tackle air pollution, underpinned by ‘England-wide powers’ to control major sources of air pollution and ‘local powers’ to take actions in areas with an air pollution problem. These will support the creation of Clean Air Zones (CAZs) to lower emissions from all sources of air pollution, back up with clear enforcement mechanisms.

²³ National Planning Practice Guidance web-based resource. Accessible at: <http://planningguidance.planningportal.gov.uk/>

²⁴ Paragraph: 005 Ref ID 32-005-20140306, revision date 01.11.2019

²⁵ Department of Environment Food and Rural Affairs. (2019) ‘Clean Air Strategy 2019’

2.2.2 Local Policy

2.2.2.1 Hampshire County Council

It is considered that the proposal would be in accordance with the relevant policies of the adopted Hampshire Minerals and Waste Plan (2013) (HMWP). Full details of the policies relating to the proposed development are set out elsewhere but to summarise, the following policies from the HMWP are relevant to this assessment:

Policy 18 (Recycled and secondary aggregates development):

“Recycled and secondary aggregate production will be supported by encouraging investment and further infrastructure to maximise the availability of alternatives to marine-won and local land-won sand and gravel extraction.”

Policy 30 (Construction, demolition and excavation waste development):

“Where there is a beneficial outcome from the use of inert construction, demolition and excavation waste in developments, such as the restoration of mineral workings, landfill engineering, civil engineering and other infrastructure projects, the use will be supported provided that as far as reasonably practicable all materials capable of producing high quality recycled aggregates have been removed for recycling.

Development to maximise the recovery of construction, demolition and excavation waste to produce at least 1mtpa of high quality recycled/secondary aggregates will be supported.”

The planning statement also includes further reference to Policy 1 / 5 / 17 / 18 / 25 / 27 / 29 / 30 of the HMWP.

2.3 Non-statutory guidance

2.3.1 Local Air Quality Management Technical Guidance (2022)

The LAQM Technical Guidance 2022²⁶ (TG22), published by the DEFRA in 2022, is designed to support local authorities in carrying out their duties under the Environment Act 1995, the Environment (Northern Ireland) Order 2002, and subsequent regulations. Any guidance or tools used in this assessment have been provided by LAQM.TG(22), in line with the Council's own work on air quality following the guiding principles.

2.3.2 Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM) Planning Guidance

The Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM) published guidance for the consideration of air quality within land-use planning and development control processes in January 2017²⁷. In the absence of any statutory guidance

²⁶ LAQM Technical Guidance 2022. Accessible at:

<https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf>

²⁷ The Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM) (2017) 'Land-Use Planning & Development Control: Planning For Air Quality'. Accessible at:

<https://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf>

on methodology, the IAQM/EPUK guidance is considered best practice and informs this assessment.

2.3.3 Institute of Air Quality Management (IAQM) Minerals Guidance

The IAQM published guidance for the assessment of mineral dust impacts for planning in May 2016²⁸. In the absence of any statutory guidance on methodology, this guidance is considered best practice and informs the operational assessment. As outlined earlier, in the absence of specific guidance relating to the assessment of dust from recycling sites, given the similar operations taking place, the above guidance is considered suitable for use for this assessment.

2.3.4 Institute of Air Quality Management (IAQM) Construction Dust Guidance

The IAQM published guidance for the assessment of dust from demolition and construction for planning in January 2024²⁹. In the absence of any statutory guidance on methodology, this guidance is considered best practice and informs assessment of construction-phase dust.

²⁸ Institute of Air Quality Management (2016). *Guidance on the Assessment of Mineral Dust Impacts for Planning (v1.1)*

²⁹ Institute of Air Quality Management (2024). *Guidance on the assessment of dust from demolition and construction (v2.2)*

3 Methodology

This section of the report sets out the methodology followed for the dust and air quality assessment, which consider potential impacts arising from the key pollutants, the potential dust emissions magnitude in relation to the construction phase and 'Residual Source Emissions' (RSE, i.e. dust emissions after mitigation) in relation to the operational stage of the development.

3.1 Scope of the assessment

The assessment is based on the following scope of work presented in Table 3.1.

Table 3.1: Scope of Work

Scope	Consideration
Pollutants	The assessment considers the impacts of particulate matter (PM ₁₀ and PM _{2.5}) and disamenity dust as a result of the construction and operational phase of the proposed development. NO ₂ is also considered in the operational phase.
Spatial	The spatial scope of the assessment includes all residential and ecological receptors within 250 m of any dust generating activities associated with the proposed development.
Temporal	For PM and disamenity dust emissions, the impact of the proposed development has been considered for both the construction and operational phases of the proposed development.

The rationale behind scoping the following pollutants into or out of this assessment is outlined below:

- NO₂ and NO_x, (associated with road traffic);
- PM₁₀ and PM_{2.5} (associated both with road traffic and with quarry operations); and
- Disamenity dust (associated with quarry operations).

3.2 Nitrogen dioxide (NO₂)

NO₂ and NO_x are largely associated with exhaust emissions, especially Heavy Duty Vehicle (HDV) traffic, and current guidance suggests that a detailed air quality assessment is required if any indicative criteria are met (presented in Table 3.2, from guidance produced by EPUK and IAQM³⁰). Any change in traffic movements of 100 HDV movements per day (or 25 within or adjacent to an AQMA) as an AADT (Annual Average of Daily Traffic) can

³⁰ Institute of Air Quality Management and Environmental Protection UK (2017). Land-Use Planning & Development Control: Planning for Air Quality

therefore be an indicative trigger level for when the operational traffic of a development could have a significant effect on air quality. In effect, NO₂ could be scoped out of the assessment if vehicle movements were below the indicative threshold.

Table 3.2: Indicative criteria for requiring an Air Quality Assessment (from EPUK/IAQM, 2017)

The development will:	Indicative Criteria to Proceed to an Air Quality Assessment ^a
1. Cause a significant change in Light Duty Vehicle (LDV) traffic flows on local roads with relevant receptors. (LDV = cars and small vans <3.5t gross vehicle weight).	A change of LDV flows of: - more than 100 AADT within or adjacent to an AQMA - more than 500 AADT elsewhere.
2. Cause a significant change in Heavy Duty Vehicle (HDV) flows on local roads with relevant receptors. (HDV = goods vehicles + buses >3.5t gross vehicle weight).	A change of HDV flows of: - more than 25 AADT within or adjacent to an AQMA - more than 100 AADT elsewhere.
3. Realign roads, i.e. changing the proximity of receptors to traffic lanes.	Where the change is 5m or more and the road is within an AQMA.
4. Introduce a new junction or remove an existing junction near to relevant receptors.	Applies to junctions that cause traffic to significantly change vehicle accelerate/decelerate, e.g. traffic lights, or roundabouts.
5. Introduce or change a bus station.	Where bus flows will change by: - more than 25 AADT within or adjacent to an AQMA - more than 100 AADT elsewhere.
6. Have an underground car park with extraction system.	The ventilation extract for the car park will be within 20 m of a relevant receptor. Coupled with the car park having more than 100 movements per day (total in and out).
7. Have one or more substantial combustion processes, where there is a risk of impacts at relevant receptors. NB. this includes combustion plant associated with standby emergency generators (typically associated with centralised energy centres) and shipping.	Typically, any combustion plant where the single or combined NO _x emission rate is less than 5 mg/sec ^a is unlikely to give rise to impacts, provided that the emissions are released from a vent or stack in a location and at a height that provides adequate dispersion. In situations where the emissions are released close to buildings with relevant receptors, or where the dispersion of the plume may be adversely affected by the size and/or height of adjacent buildings (including situations where the stack height is lower than the receptor) then consideration will need to be given to potential impacts at much lower emission rates. Conversely, where existing nitrogen dioxide concentrations are low, and where the dispersion conditions are favourable, a much higher emission rate may be acceptable.

^a As a guide, the 5 mg/s criterion equates to a 450 kW ultra low NO_x gas boiler or a 30kW CHP unit operating at <95mg/Nm³. Users of this guidance should quantify the NO_x mass emission rate from the proposed plant, based on manufacturers' specifications and operational conditions.

Based on the proposal to increase the annual permitted tonnage to 220,280 tonnes, the additional imported IBA for recovery and associated metals exported will generate an additional 13 lorry loads daily (26 lorry in/out movements). Consequently, nitrogen dioxide has been scoped out of this assessment.

3.3 Fine particulate matter (PM₁₀ and PM_{2.5})

Test Valley Borough Council are responsible for air quality within the jurisdiction in which the proposed development is located.

Particulate matter can arise from a wide range of sources other than traffic at recycling sites thus the potential impacts of PM₁₀ and PM_{2.5} arising from the proposed development require further consideration.

With regard to PM₁₀ and PM_{2.5} impacts associated with the proposed development, one approach is that the potential impacts on AQO can be determined by comparing the total predicted environmental concentration (PEC) of particulate matter estimated to arise from them with the annual mean objective. The PEC can be determined by combining the existing background ambient concentration (AC) and the expected process contribution (PC).

The AC for PM₁₀ and PM_{2.5} can be determined from publicly available monitoring data or, where this is not representative, site-specific monitoring data. For this assessment, the Defra national annual estimated average background concentrations, which are determined for every local authority in the UK at 1 × 1 km grid square resolution³¹, have been investigated and are considered to be representative.

The IAQM minerals guidance (2016) states at Section 5.2:

“If the long term background PM₁₀ concentration is less than 17 µg/m³ there is little risk that the Process Contribution (PC) would lead to an exceedance of the annual-mean objective and such a finding can be put forward qualitatively, without the need for further consideration, in most cases.”

The PC for the operation, the consequent PEC and resultant impacts on the AQO for PM₁₀ and PM_{2.5} arising from the construction and operation of the proposed development are considered further below.

3.4 Disamenity dust

Dust emissions from a recycling site, its propagation and potential impacts can be considered in terms of ‘source-pathway-receptor’ relationships. Dust can arise from a variety of processes and locations within a site and can be difficult to quantify.

The IAQM minerals guidance (2016) sets out suggested site processes that may be considered distinctly as having the potential to generate dust at a minerals site; many of these processes take place on IBA recycling sites. These processes are outlined at Appendices 3 and 4 of the guidance (reproduced in part within Appendix B). From this, the RSEs for different activities may be determined. A guide to the estimation of RSEs, reliant on the professional judgement of the assessor, is provided at Appendix 4 of the IAQM minerals guidance (2016).

³¹ Department for Environment, Food & Rural Affairs (2018). *Background Mapping data for local authorities – 2021*. Available at <https://uk-air.defra.gov.uk/data/iaqm-background-maps?year=2021>

Consequently, however it is recognised that there is a potential for dust emissions to occur at various stages of the operation, but it is also known that these can generally be controlled by recognised practices, as set out below.

The most common pathway for dust propagation is by air. Dust propagation depends on particle size, wind energy and disturbance activities. Large dust particles generally travel shorter distances than small particles. It is often considered that particles greater than 30 µm will largely deposit within 100 m of sources, those between 10 – 30 µm will travel up to 250 – 500 m and particles less than 10 µm will travel up to 1 km from sources, however there is a notable reduction in concentration with distance.

Regarding the construction phase of the assessment, the IAQM minerals guidance (2024) states that an assessment is required when there is a 'human receptor' within 250 m of the site.

The IAQM minerals guidance (2016) states that dust impacts will mainly occur within 250 m of the operation for sand and gravel quarries, and within 400 m of the operation for hard rock (e.g. granite) quarries although, as noted in various guidance documents, residents' concerns are most likely to be experienced within 100 m of the dust source, or sources. However, as this assessment is for an IBA site, with no mineral extraction taking place and enclosed processing, it is unlikely that dust impacts will occur beyond 250 m of the site.

Based on the IAQM guidance for both construction and mineral dust impacts, all receptors up to 250 m have been scoped into the construction and operational phases of this assessment.

3.5 Assessment Method and Tools

The assessment has been carried out with reference to relevant guidance, in particular the PPG minerals guidance (2014) the IAQM minerals guidance (2016) and the IAQM construction dust guidance (2024). Key tables and figures from these guidance documents are reproduced in Appendix A and Appendix B below.

3.6 Significance Criteria

As there are no universally agreed objectives, limits or target values for disamenity dust, the determination of significance is more reliant on the application of professional judgement by competent, suitably qualified and experienced air quality professionals. It is up to the assessor to reach a conclusion on significance based on the overall potential for disamenity and ecological effects.

The assessment is carried out based on the impacts from the construction and operational phases of the development, taking into account the controls incorporated into the design. If the outcome of the operational phase of the assessment is that the overall effect is 'not significant' then these controls will likely be sufficient. If however, the overall effect is anticipated to be 'significant' then it is likely that additional mitigation will be required to sufficiently reduce the impacts.

3.7 Dust assessment uncertainties, limitations and assumptions

As set out above, there is no standard method for carrying out a dust assessment for recycling sites, hence the use of guidance relating to mineral and construction sites published by the IAQM (IAQM, 2016 and IAQM, 2024). These guidance documents recognise the need for professional judgement in carrying out such assessments. Consequently, an uncertainty associated with any dust assessment is that the assessor's judgement is appropriate. The lead author of this assessment was suitably experienced to carry out the assessment, and the assessment and calculations went through a rigorous internal review and approval protocol prior to issuing to the client.

A limitation of any assessment is that it is carried out without the development in place, i.e. as a future scenario. Consequently, it is not possible to make any quantification of the potential impacts although every effort has been made to accurately assess any potential impact of the proposed development.

A limitation of this assessment is that it has been carried out with reference to weather data from beyond the site boundary. This is in accordance with the IAQM minerals guidance (2016), and every effort has been made to ensure the data are representative of the area.

It is assumed that the site will be constructed and operated as described for the purposes of this assessment.

It is assumed that there is no change in the relevant AQO, or that any AQO or similar national or local objective, threshold or limit value will be introduced for disamenity dust.

It is assumed that the mitigation set out in this report will be adopted once planning consent has been granted, and that the mitigation measures will be applied as recommended, and consequently that the dust emissions magnitudes and residual source emission values determined in this assessment will be realistic estimates of dust emissions associated with the construction and operations described.

4 Baseline conditions

4.1 Particulate matter (PM₁₀ and PM_{2.5})

As set out above, PM₁₀ and PM_{2.5} are not monitored by TVBC. Modelled background concentrations have therefore been obtained from Defra, who provide background pollution concentration estimates to assist local authorities in undertaking their 'Review and Assessment' work. This data is available to download from the Defra air quality resource website for NO_x, NO₂, PM₁₀ and PM_{2.5} for every 1 km x 1 km grid square for all local authorities. The current dataset is based on 2021 background data and future year projections are available for 2021 to 2040.

The estimated PM₁₀ and PM_{2.5} concentrations for 2021 (the Defra baseline year) and 2025, for the grid squares at the proposed site area are set out in Table 4.1 and Table 4.2.

Table 4.1: Defra estimated background ambient PM₁₀ concentrations for the grid squares in which the proposed development is located

Grid reference		PM ₁₀ concentration (µg/m ³)	
Eastings	Northings	2021	2025
443500	142500	12.7	12.4
444500	142500	12.7	12.4
Average		12.7	12.4

Table 4.1 shows that the 2025 predicted PM₁₀ background concentration in the vicinity of the site is 12.4 µg/m³, equivalent to 30.1 % of the PM₁₀ annual mean objective (40 µg/m³). As such, based on the IAQM minerals guidance (2016), given that the current predicted background concentration is less than 17 µg/m³, there is little risk that future on site operations would lead to an exceedance of the annual mean objective for PM₁₀.

Table 4.2: Defra estimated background ambient PM_{2.5} concentrations for the grid squares in which the proposed development is located

Grid reference		PM _{2.5} concentration (µg/m ³)	
Eastings	Northings	2021	2025
437500	229500	6.7	6.5
438500	229500	6.7	6.5
Average		6.7	6.5

Table 4.2 shows that the 2025 predicted PM_{2.5} background concentration in the vicinity of the site is 6.5 µg/m³, equivalent to 65 % of the new annual mean AQO to be achieved by 2040 (10 µg/m³). Given that PM_{2.5} emissions from the site are expected to be minimal, the

impacts of operations on the future target value for $PM_{2.5}$ are also not considered to be significant.

4.2 Disamenity dust

Dust monitoring has been ongoing around the site boundary for a number of years. Monitoring is carried out at key locations surrounding the current site, using the methodology outlined in Section 4.2.1. Monitoring locations include:

- DO1 and DO4 (Located on the western boundary between the IBA site and recycling centre)
- DO2 (Located on the southern boundary between the site and solar farm)
- DO3 (Background location located northeast of the site)



Figure 4.1: Dust monitoring locations

4.2.1 Methodology

Directional dust is monitored using DustScan sticky pad directional dust samplers. Being cylindrical, the samplers collect dust from 360° around the sampling head and are reported in discrete 15° intervals (i.e. 0 – 15°, 15 – 30° and so on).

Directional dust samples were analysed for dust coverage (AAC) and dust soiling (EAC) which are typically expressed as % AAC and % EAC, both per sampling interval and per day. The potential risk of annoyance through directional dust at each sampling location can be assessed in accordance with the 'risk' matrices in Table 4.3.

Table 4.3: Directional dust annoyance 'risk' matrix for use with directional dust samplers

		AAC: Dust coverage				
		Level 0: <80%/interval	Level 1: 80 to <95%/interval	Level 2: 95 to <99%/interval	Level 3: 99 to 100%/interval	Level 4: 100% over 45°/interval
EAC: Dust soiling	Level 0: <0.5%/day	Very Low	Very Low	Very Low	Low	Medium
	Level 1: 0.5 to <0.7%/day	Low	Low	Low	Medium	High
	Level 2: 0.7 to <2.0%/day	Medium	Medium	Medium	High	High
	Level 3: 2.0 to <5.0%/day	High	High	High	High	Very High
	Level 4: ≥5%/day	Very High	Very High	Very High	Very High	Very High

4.2.2 Directional dust results

The available directional dust soiling 'risk' data from May 2022 - April 2025 are summarised below in Table 4.4.

Table 4.4: Frequency of directional dust risk values, A303 Enviropark IBA site, 2021

Dust Impact Risk	Monitoring point			
	DO1	DO2	DO3	DO4
Very Low	12.9%	18.2%	23.2%	29.6%
Low	15.6%	16.8%	19.1%	19.4%
Medium	48.2%	49.6%	45.7%	42.0%
High	23.3%	15.4%	12.0%	9.0%
Very High	0.0%	0.0%	0.0%	0.0%

At monitoring locations DO1 and DO4, located between the IBA site and the recycling site, the majority of dust results recorded were 'Medium' or below. Some dust risk levels up to 'High' were recorded at these locations, however these tended to occur during extended periods of warm dry weather.

At DO3 (located to the northeast of the site) and DO2 (located along the northern boundary) dust impact risks also recorded infrequent 'High' levels; however, dust levels were most commonly 'Medium' or lower.

Due to the nature of the site and the lack of nearby sensitive receptors, it is unlikely that the proposed development will result in an increase in dust monitoring results, provided the control measures in place on the existing site are also applied to the extension.

4.3 Meteorological data

Meteorological conditions can have a significant effect on the potential for dust propagation from a recycling site. Of particular importance are wind speed, wind direction and precipitation.

Dust can be carried from a source towards receptors (such as nearby homes, other businesses and designated ecological sites) according to the strength and direction of wind. Precipitation is recognised to suppress dust and 0.2 mm of antecedent rainfall is considered sufficient to suppress windblown dust for a number of hours.

A wind rose showing the 'dry' days³² for Middle Wallop, the nearest appropriate Met Office land surface observation station, approximately 15 km to the southwest of the site, is presented at Figure 4.2. This demonstrates westerly winds are prevailing in this area, with somewhat frequent winds also from the south, north and north-east.

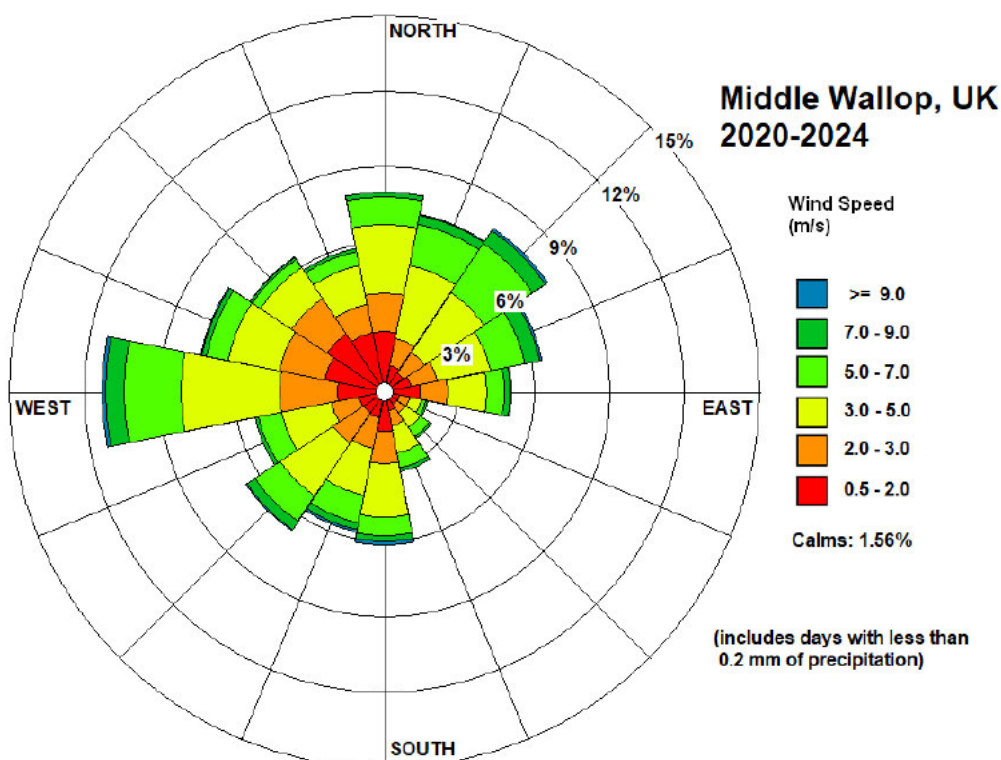


Figure 4.2: Wind rose, dry days (five-year average), Middle Wallop (2020 – 2024)

Table 4.5: Frequency of winds by direction, Middle Wallop, 2020 – 2024

Wind direction	Frequency of all winds	Frequency of dry winds > 5 m/s
348.75 - 11.25	8.0%	1.3%
11.25 - 33.75	7.2%	2.1%
33.75 - 56.25	7.8%	3.1%

³² 'Dry' days are those with less than 0.2 mm liquid equivalent precipitation and are associated with an increased risk of dust propagation

Wind direction	Frequency of all winds	Frequency of dry winds > 5 m/s
56.25 - 78.75	6.4%	2.1%
78.75 - 101.25	5.1%	1.0%
101.25 - 123.75	1.8%	0.2%
123.75 - 146.25	2.3%	0.5%
146.25 - 168.75	3.3%	0.7%
168.75 - 191.25	6.1%	1.1%
191.25 - 213.75	5.7%	1.5%
213.75 - 236.25	6.7%	1.6%
236.25 - 258.75	5.3%	1.0%
258.75 - 281.25	11.3%	3.2%
281.25 - 303.75	7.5%	1.1%
303.75 - 326.25	6.5%	0.5%
326.25 - 348.75	5.8%	0.7%
Calms	1.6%	N/A

4.4 Receptors

Whilst dust generation within a recycling site is primarily of concern to its operator, staff and visitors, dust can propagate beyond the site boundary to affect people and properties beyond, unless adequate control measures are in place. It is important to recognise that there may be other dust sources in the vicinity of an industrial site (such as road traffic, arable farmland or other sites).

Table 4.6 provides a summary of receptors situated within 250 m of the proposed development boundary, along with the closest distance to dust-generating activities, and their deemed sensitivity to dust soiling (as set out below). In order to comprehensively assess the potential for dust impacts as a result of the proposed development, all receptors within 250 m have been scoped into the assessment.

The locations of the receptors are shown in Figure 4.3, along with receptor proximity buffers from the proposed development based on the recommended distances from both the IAQM mineral guidance (2016) and the IAQM construction dust (2024) guidance.

The IAQM minerals guidance (2016) and IAQM construction dust guidance (2024) both set out guidance regarding the sensitivity of human receptors to dust; for this assessment the shooting school is considered to be a **Medium** sensitivity receptor and the Recycling centre is considered to have **Low** sensitivity to dust.

With regard to ecological receptors both the IAQM minerals guidance (2016) and IAQM construction dust guidance (2024) stress that professional judgement is required to identify the specific sensitivity of a given ecological receptor but notes that sensitivity to dust for ecological receptors may relate to international, national or local designations. There are no

sensitive ecological receptors within 250 m of the proposed working area, so none have been included in the assessment.

The IAQM minerals guidance (2016) suggests that potential dust impacts arising from a minerals site may be considered in relation to the identified dust source activities and locations; this is applicable to a recycling site. Additionally, the IAQM construction dust guidance (2024) suggests that all human receptors within 250 m from the site should be included. From above, consideration is made of potential impacts to the receptors identified in Table 4.6 with regard to principal dust sources.

The distances shown are the minimum between any potential receptor and any given stage of site operations and thus can be considered to represent a 'worst-case' evaluation. For the majority of receptors, the activity in closest proximity will be restoration. Similarly, the directions to dust sources consider the maximum potential arc of direction (taking into account activities within 250 m), so are also considered to represent a 'worst-case' evaluation.

Table 4.6: Receptors considered in the assessment

No.	Receptor	Sensitivity	Primary direction/s to dust sources	Minimum distance to dust source (m)
R1	Shooting School	Medium	213.75 – 326.25°	80
R2	A303 MRF	Low	348.75 – 056.25°	75

Table 4.7 below shows a summary of the sensitivity of the area to different construction related activities on dust soiling and human health, following the approach laid out in the IAQM construction dust guidance (2024). Overall, the area is considered to have a low sensitivity to dust.

Table 4.7: Sensitivity of Study Area

Potential Impact	Sensitivity of the surrounding area			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low	Low	Low	Low
Human Health	Low	Low	Low	Low

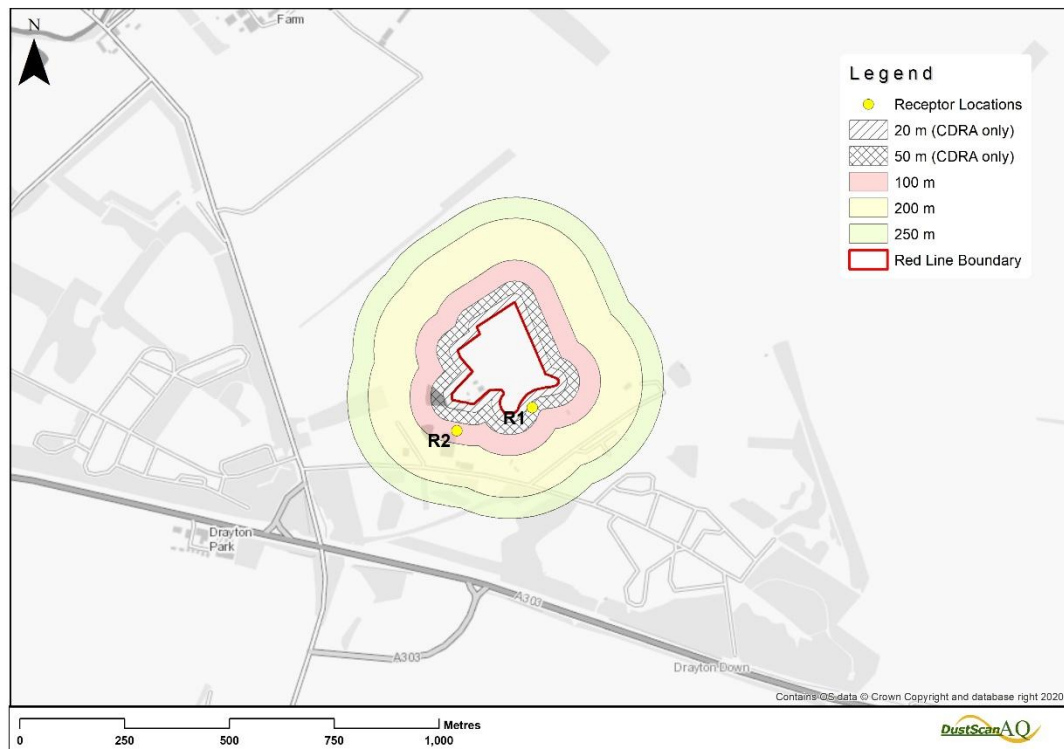


Figure 4.3: Locations of receptors with respect to the proposed development

5 Assessment Inputs

A summary of the key disamenity dust assessment inputs is provided in Table 5.1. The assessment was informed by detailed site inspections and knowledge of on-site processes, and discussions with site management as to the working methods and dust suppression currently in use on the existing site.

Table 5.1: Summary of disamenity dust assessment inputs

Assessment inputs	Details
Meteorological data	Frequency of 'dry' winds > 5 m/s, Middle Wallop, 2020 – 2024. Further details in Section 4.3.
Receptor locations	Locations of receptors obtained from site walkover, Google Earth and Ordnance Survey mapping data. Distance from development area where specific dust generating activities will take place (m). Arc of direction from receptor to dust sources (degrees). Further details in Section 4.4.
Receptor sensitivity	High, Medium or Low sensitivity in accordance with IAQM minerals guidance and IAQM construction dust guidance. Further details in Section 4.4.
Source location(s)	Site walkover and site plans and drawings prepared by Fortis IBA Limited, dated February 2025.
Construction Phase	
Dust Emissions Magnitude	The potential dust emission magnitude (DEM) based on the scale of the anticipated works during the construction phase of the development. DEMs for different activities within the proposed development area, including demolition, earthworks, construction and trackout. Further details in Table 5.3 and Appendix D.
Operational Phase	
Residual Source Emissions (RSEs)	The potential dust emissions from a site activity after designed-in mitigation measures have been considered. RSEs considered for each dust generating activity taking place within the proposed restoration area. Further details in Table 5.3 and Appendix E.

5.1 Construction Phase

Judgement of the categorisation of Dust Emission Magnitudes (Small, Medium and Large) is based on the scale of the anticipated works for different activities.

Potential site activities that may give rise to dust as a result of the construction phase are:

- Demolition;
- Earthworks;
- Construction; and
- Trackout.

A summary of the DEMs for activities associate with the construction of the proposed development area is provided below in Table 5.2. The specific rationale behind the estimation for each DEM is provided in Appendix D.

Table 5.2: Summary of Dust Emission Magnitude

Activity	Dust Emission Magnitude	Details
Demolition	Small	Existing processing plant to be dismantled and removed.
Earthworks	Small	Total area approximately 10,116.5 m ² .
Construction	Large	Total building volume over 75,000 m ³ .
Trackout	Low	Maximum 18 daily movements associated with the construction phase

5.2 Operational Phase

Judgement of the categorisation of RSE (generally Small, Medium and Large) takes into account the emission potential for each on-site source (including source strength, frequency and duration) and how effectively they are likely to be controlled by designed-in mitigation measures. Relevant extracts from the guidance have been reproduced in Appendix C and have been followed when considering RSEs.

Potential sources or site activities that may give rise to dust as a result of onsite operations are:

- Materials handling
- On-site transportation;
- Material processing;
- Wind scouring of exposed surfaces and stockpiles; and
- Offsite transportation

A summary of the RSEs for activities associated with the proposed development is provided below in Table 5.3. The specific rationale behind the estimation of each RSE is provided in Appendix E.

Table 5.3: Summary of Residual Source Emissions

Activity	Residual Source Emission
Materials handling	Small
On-site transportation	Medium
Material processing	Small
Wind scouring of exposed surfaces and stockpiles	Medium
Offsite transportation	Medium

6 Potential impacts

6.1 Construction Phase

This section sets out the potential impacts of the construction of the proposed development, which have been determined by means of the method outlined by the IAQM (2024), which is presented in Appendix A.

The overall risk of dust soiling and human health impacts to sensitive receptors are presented in Table 6.1.

Table 6.1: Summary of the Risk of Construction Dust Effects

Potential Impact	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Negligible	Negligible	Low Risk	Negligible
Human Health	Negligible	Negligible	Low Risk	Negligible

Based upon the above, the risk associated with dust soiling from construction activities is classified as 'Low Risk', with all other activities 'Negligible'. With respect to human health impacts the risk is no greater than 'Low Risk' from construction, with all other activities are expected to be 'Negligible'.

6.2 Operational Phase

6.2.1 Potential disamenity dust impacts

This section sets out the potential impacts of the operation, which have been determined by means of the method outlined by the IAQM (2016).

Most on-site activities associated with the operation have been assessed to have a Small or Medium residual source emission after mitigation. The potential impacts as a result of each specific site activity with respect to each receptor are below in Table 6.2 to Table 6.3.

Table 6.2: R1 Shooting School

Dust source type	Pathway effectiveness	Dust impact risk	Magnitude of dust effects
Materials handling	Ineffective	Negligible Risk	Negligible Effect
On-site transportation	Ineffective	Negligible Risk	Negligible Effect
Material processing	Ineffective	Negligible Risk	Negligible Effect
Wind scouring of stockpiles and exposed surfaces	Ineffective	Negligible Risk	Negligible Effect

Dust source type	Pathway effectiveness	Dust impact risk	Magnitude of dust effects
Offsite transportation	Ineffective	Negligible Risk	Negligible Effect

Table 6.3: R2 A303 MRF

Dust source type	Pathway effectiveness	Dust impact risk	Magnitude of dust effects
Materials handling	Moderately Effective	Negligible Risk	Negligible Effect
On-site transportation	Moderately Effective	Negligible Risk	Negligible Effect
Material processing	Moderately Effective	Low Risk	Negligible Effect
Wind scouring of stockpiles and exposed surfaces	Ineffective	Negligible Risk	Negligible Effect
Offsite transportation	Ineffective	Negligible Risk	Negligible Effect

The results of the assessment show that all off-site receptors are likely to experience Negligible dust effects as a result of activities within the proposed development area.

This assessment assumes that standard mitigation measures are in place. With reference to the IAQM minerals guidance (2016) the overall impact of the operation is therefore considered to be **not significant**.

6.2.2 Potential impacts to human health

As discussed in Section 4.1, the predicted annual background and monitored baseline PM₁₀ concentrations are less than 17 µg/m³, so there is little risk that the process contribution would lead to an exceedance of the relevant objectives.

Additionally, the predicted annual background and monitored baseline PM_{2.5} concentration is well within the annual mean objective, and it is understood that the IBA recycling operations activities do not generate significant amounts of fine particulate matter. Consequently, there is little risk of an exceedance associated with the proposed development.

As the operation is not likely to significantly impact the PM₁₀ and PM_{2.5} concentrations locally, the potential impacts to human health are considered to be Negligible.

6.2.3 Cumulative impacts

Whilst material processing is currently ongoing within the existing IBA site, the proposed development effectively replaces this activity, hence it will not result in any cumulative impacts.

Furthermore, waste recycling operations at the A303 Recycling Centre (Receptor 2), situated approximately 70 metres south of the site, have the potential to contribute to dust

propagation at the A303 Enviropark IBA Site. However, both the replant and enhanced IBA Recovery Facility will be housed within separate buildings, with partially enclosed new plant and a fully enclosed enhanced processing facility equipped with state-of-the-art dust control measures. As a result, overall dust levels are expected to decrease. Additionally, given the absence of nearby sensitive receptors, the likelihood of any cumulative dust-related impacts is considered unlikely.

7 Mitigation measures

The recommended mitigation measures are set out in a separate Dust Management Plan for use during the operation of the site. The suggested mitigation measures are based on the results of the assessment and are drawn from experience and best practice guidance.

8 Conclusion

Fortis IBA Ltd is preparing a planning application at the IBA Recycling Facility, A303 Enviropark. The proposal seeks to replace and relocate the existing Incinerator Bottom Ash recycling plant and build an enhanced IBA recovery facility within the proposed adjoining extension area.

This assessment was carried out by competent professionals and with appropriate reference to relevant policy and guidance.

The assessment considered the potential impacts on the Air Quality Objectives (AQO) for PM_{10} and $PM_{2.5}$, and from 'nuisance' or 'disamenity' dust arising from the proposed development. Both the construction and operational phases of the development have been assessed.

Defra projections for PM_{10} and $PM_{2.5}$ has shown that activities associated with the proposed development are not likely to have an adverse impact on particulate matter concentrations. Consequently, exceedances of the relevant AQOs are not likely.

Provided that this site is operated in accordance with the dust mitigation measures provided, the assessment shows that for the construction phase, the risk associated with dust soiling from construction activities is classified as 'Low Risk', with all other activities 'Negligible'. With respect to human health impacts the risk is no greater than 'Low Risk' from construction, with all other activities are expected to be 'Negligible'. Furthermore, Negligible magnitude of dust effects as a result of the proposed development at all nearby receptors during the operational phase.

Consequently, this assessment shows that the proposed development can be operated in a manner unlikely to cause significantly adverse dust impacts in its vicinity. With reference to best practice guidance, the overall impact of the proposed development is considered to be not significant.

The proposal is considered not to conflict with any national, regional or local planning policy.

Appendix A: Construction Dust Risk Assessment Criteria

IAQM guidance framework on assessing the risk of dust proposes the construction phase should be split into phases dependent on their potential impacts, determining the risk for each individually. Therefore, this assessment has determined the risk of the four construction categories put forward by the IAQM guidance:

- Demolition;
- Earthworks;
- Construction; and
- Track out (transport of dust and dirt onto the public road network).

The IAQM guidance framework states that the risk of dust impacts from the four categories can be defined as 'negligible', 'low risk', 'medium risk' or 'high risk' depending upon the scale and nature of the construction activity and the sensitivity and proximity of receptors to the construction site boundary. This categorisation is used to put forward appropriate mitigation measures, reducing the level of effects from the dust impacts so they are not significant.

The assessment of dust impacts using the IAQM guidance considers three separate effects from dust:

- Annoyance due to dust soiling;
- Harm to ecological receptors; and
- The risk of health effects due to significant increase in exposure to PM₁₀.

Step 1 of the assessment is set out to screen for the requirement for a more detailed assessment for the proposed development. The screening criteria states:

A 'human receptor' within:

- 250 m of the boundary of the application site; or
- 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the site entrance(s).

An 'ecological receptor' within:

- 50 m of the boundary of the application site; or
- 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the site entrance(s).

Where there are no receptors and the level of risk is deemed 'negligible', there is no need for further assessment.

Step 2A of the assessment enables the overall dust emission magnitude (small, medium or large) from each dust source (demolition, earthworks, construction and trackout) to be identified in relation with the criteria outlined in Table A.1.

Table A.1: Dust emission magnitude

Source	Large	Medium	Small
Demolition	Total building volume >75,000 m ³ , potentially dusty construction material (e.g. concrete), on-site crushing and screening, demolition activities >12 m above ground level.	Total building volume 12,000 m ³ – 75,000 m ³ , potentially dusty construction material, demolition activities 6 – 12 m above ground level.	Total building volume <12,000 m ³ , construction material with low potential for dust release (e.g. metal cladding or timber), demolition activities <6 m above ground, demolition during wetter months.
Earthworks	Total site area >110,000 m ² , potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size), >10 heavy earth moving vehicles active at any one time, formation of bunds >6 m in height.	Total site area 18,000 m ² – 110,000 m ² , moderately dusty soil type (e.g. silt), 5-10 heavy earth moving vehicles active at any one time, formation of bunds 3 m – 6 m in height.	Total site area <18,000 m ² , soil type with large grain size (e.g. sand), <5 heavy earth moving vehicles active at any one time, formation of bunds <3 m in height.
Construction	Total building volume >75,000 m ³ , on site concrete batching, sandblasting.	Total building volume 12,000 m ³ – 75,000 m ³ , potentially dusty construction material (e.g. concrete), on site concrete batching.	Total building volume <12,000 m ³ , construction material with low potential for dust release (e.g. metal cladding or timber).
Track out	>50 HDV (>3.5t) outward movements ^a in any one day ^b , potentially dusty surface material (e.g. high clay content), unpaved road length >100 m.	20-50 HDV (>3.5t) outward movements ^a in any one day ^b , moderately dusty surface material (e.g. high clay content), unpaved road length 50 m – 100 m.	<20 HDV (>3.5t) outward movements ^a in any one day ^b , surface material with low potential for dust release, unpaved road length <50 m.
Notes: ^a Vehicle movement is a one-way journey. i.e. from A to B, and excludes the return journey. ^b HDV movements during a construction project vary over its lifetime, and the number of movements is the maximum not the average.			



Step 2B allows for the sensitivity of the area (high, medium or low) to be assessed and takes into account a number of factors:

- The specific sensitivities of receptors in the area;
- The proximity and number of those receptors;
- In the case of PM₁₀, the existing local background concentration; and
- Site specific factors, such as whether there are natural shelters, such as trees, to reduce the risk of wind-blown dust.

Receptor sensitivity has been based on the highest of any criteria being met thus, the assessment is considered as robust. The sensitivity of the area is further determined for dust soiling, human health and ecosystem effects by considering the criteria presented in Table A.2.

Table A.2: Magnitude of Receptor Sensitivity

Source	High	Medium	Low
Sensitivities of people to dust soiling effects	• Users can reasonably expect enjoyment of a high level of amenity; or • The appearance, aesthetics or value of their property would be diminished by soiling; and • The people or property would reasonably be expected to be present continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land. • Indicative examples include dwellings, museums and other culturally important collections, medium and long term car parks and car showrooms.	• Users would expect^a to enjoy a reasonable level of amenity, but would not reasonably expect^a to enjoy the same level of amenity as in their home; or • The appearance, aesthetics or value of their property could be diminished by soiling; or • The people or property wouldn't reasonably be expected^a to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land. • Indicative examples include parks and places of work.	• The enjoyment of amenity would not reasonably be expected^a; or • Property would not reasonably be expected^a to be diminished in appearance, aesthetics or value by soiling; or • There is transient exposure, where the people or property would reasonably be expected^a to be present only for limited periods of time as part of the normal pattern of use of the land. • Indicative examples include playing fields, farmland (unless commercially-sensitive horticultural), footpaths, short term car parks^b and roads.
Sensitivities of people to health effects of PM₁₀	• Locations where members of the public are exposed over a time period relevant to the air quality objective for PM₁₀ (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day).^c	• Locations where the people exposed are workers^d, and exposure is over a time period relevant to the air quality objective for PM₁₀ (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day).	• Locations where human exposure is transient^e. • Indicative examples include public footpaths, playing fields, parks and shopping streets.

Source	High	Medium	Low
	Indicative examples include residential properties. Hospitals, schools and residential care homes should also be considered as having equal sensitivity to residential areas for the purposes of this assessment.	Indicative examples include office and shop workers, but will generally not include workers occupationally exposed to PM₁₀, as protection is covered by Health and Safety at Work legislation.	
Sensitivities of receptors to ecological effects	- Locations with an international or national designation and the designated features may be affected by dust soiling; or - Locations where there is a community of a particularly dust sensitive species such as vascular species included in the Red Data List For Great Britain^f. - Indicative examples include a Special Area of Conservation (SAC) designated for acid heathlands or a local site designated for lichens adjacent to the demolition of a large site containing concrete (alkali) buildings.	- Locations where there is a particularly important plant species, where its dust sensitivity is uncertain or unknown; or - Locations with a national designation where the features may be affected by dust deposition. - Indicative example is a Site of Special Scientific Interest (SSSI) with dust sensitive features.	- Locations with a local designation where the features may be affected by dust deposition. - Indicative example is a local Nature Reserve with dust sensitive features.

Notes:

^a People's expectations will vary depending on the existing dust deposition in the area, see Section 4.2.

^b Car parks can have a range of sensitivities depending on the duration and frequency that people would be expected to park their cars there, and the level of amenity they could reasonably expect whilst doing so. Car parks associated with work place or residential parking might have a high level of sensitivity compared to car parks used less frequently and for shorter durations, such as those associated with shopping. Cases should be examined on their own merits.

^c This follows Defra guidance as set out in LAQM.TG(22).

^d Notwithstanding the fact that the air quality objectives and limit values do not apply to people in the workplace, such people can be affected to exposure of PM₁₀. However, they are considered to be less sensitive than the general public as a whole because those most sensitive to the effects of air pollution, such as young children are not normally workers. For this reason workers have been included in the medium sensitivity category.

^e There are no standards that apply to short-term exposure, e.g. one or two hours, but there is still a risk of health impacts, albeit less certain.

^f Cheffing C. M. & Farrell L. (Editors) (2005), The Vascular Plant. Red Data List for Great Britain, Joint Nature Conservation Committee.

The final step, Step 2C allows for the risk of impacts to be defined. The dust emission magnitude derived in Step 2A is combined with the sensitivity of the area defined in step 2B to determine the risk of effects on:

- Annoyance due to dust soiling;
- Harm to ecological receptors; and
- The risk of health effects due to an increase in exposure to PM₁₀.

The criteria for each of the dust sources are presented in Table A.3, Table A.4, Table A.5 and Table A.6.

Table A.3: Demolition

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

Table A.4: Earthworks

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table A.5: Construction

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table A.6: Track out

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Appendix B: Minerals Dust Assessment criteria (from IAQM, 2016)

It is recognised that dust impacts reduce with distance. IAQM suggest that minerals dust assessments are carried out in relation to three distance criteria, as reproduced in Table B.1. These criteria have been applied to this assessment.

Table B.1: Categorisation of receptor distance from source (reproduced from IAQM, 2016)

Category	Criteria
Distant	Receptor is between 200 and 400 m from the dust source
Intermediate	Receptor is between 100 and 200 m from the dust source
Close	Receptor is less than 100 m from the dust source

In addition to the above, the frequency of winds from each direction is recognised to affect dust propagation. Dry winds (i.e. winds recorded during dry conditions) are known to be capable of propagating dust more effectively than wet winds. Consequently, the IAQM minerals guidance (2016) suggests a range of wind frequency criteria based on dry winds, as reproduced in Table B.2. These wind frequency criteria have been applied to this assessment.

Table B.2: Categorisation of frequency of potentially dusty winds (reproduced from IAQM, 2016)

Frequency Category	Criteria
Infrequent	Frequency of winds (>5 m/s) from the direction of the dust source on dry days are less than 5%
Moderately frequent	The frequency of winds (>5 m/s) from the direction of the dust source on dry days are between 5% and 12%
Frequent	The frequency of winds (>5 m/s) from the direction of the dust source on dry days are between 12% and 20%
Very frequent	The frequency of winds (>5 m/s) from the direction of the dust source on dry days are greater than 20%

From this, the IAQM (2016) suggest that the effectiveness of the pathway for dust propagation may be evaluated by combining the distance/s to receptors and the frequencies of potentially dusty winds (as set out in Table B.3). This method has been applied to this assessment.

Table B.3: Pathway effectiveness (reproduced from IAQM, 2016)

		Frequency of potentially dusty winds			
		Infrequent	Moderately frequent	Frequent	Very frequent
Receptor Distance Category	Close	Ineffective	Moderately Effective	Highly Effective	Highly Effective
	Intermediate	Ineffective	Moderately Effective	Moderately Effective	Highly Effective
	Distant	Ineffective	Ineffective	Moderately Effective	Moderately Effective

The IAQM minerals guidance (2016) suggest that the 'risk of dust impact' may be assessed by considering the pathway effectiveness (from Table B.3) with the Residual Source Emissions (the potential dust emissions from a site activity after designed-in mitigation measures have been taken into account), using Table B.4. This approach has been followed for this assessment.

Table B.4: Estimation of dust impact risk (reproduced from IAQM, 2016)

		Residual Source Emissions		
		Small	Medium	Large
Pathway Effectiveness	Highly effective	Low Risk	Medium Risk	High Risk
	Moderately effective	Negligible Risk	Low Risk	Medium Risk
	Ineffective	Negligible Risk	Negligible Risk	Low Risk

As stated by the IAQM minerals guidance (2016) estimation of residual source emissions is a matter of professional judgement based on knowledge of the site and its locality, the processes involved and how these might relate to corresponding activities at other minerals sites.

Consequently, it should be recognised that these are wide ranging and therefore not prescriptive criteria and, as with all other aspects of dust assessment for minerals sites, rely on professional judgement based on the experience of the assessor.

From this, the magnitude of dust impacts may be evaluated by combining the dust impact risk with the receptor sensitivity (noted above), as shown in Table B.5. This approach has been followed for this assessment.

Table B.5: Descriptors for magnitude of dust effects (reproduced from IAQM, 2016)

		Receptor Sensitivity		
		Low	Medium	High
Dust impact risk	High	Slight Adverse Effect	Moderate Adverse Effect	Substantial Adverse Effect
	Medium	Negligible Effect	Slight Adverse Effect	Moderate Adverse Effect
	Low	Negligible Effect	Negligible Effect	Slight Adverse Effect
	Negligible	Negligible Effect	Negligible Effect	Negligible Effect

Consequently, from the IAQM minerals guidance (2016) an assessment of the potential severity of dust impacts associated with the operation may be determined.

Appendix C: Guidance on the estimation of Residual Source Emissions (from IAQM, 2016)

A: Site Preparation/Restoration

LARGE	SMALL
Large working area	Small working area
High bunds	Low bunds
High volume of material movement	Low volume of material movement
High no. heavy plant.....	Low no. heavy plant
Minimal seeding/sealing of bund surface	Bunds seeded/sealed immediately
Material of high dust potential	Material of low dust potential

B: Mineral Extraction

LARGE	SMALL
Large working area	Small working area
High energy extraction methods.....	Low energy extraction methods
Material of high dust potential	Material of low dust
Potential high extraction rate	Low extraction rate

C: Materials Handling

LARGE	SMALL
High no. heavy plant.....	Low no. heavy plant
Unconsolidated/bare surface.....	Hard standing surface
Activities close to site boundary	Activities within quarry void
Material of high dust potential	Material of low dust potential

D: On-Site Transportation

LARGE	SMALL
Use of unconsolidated haul roads.....	Use of conveyors
Unpaved haul roads.....	Paved haul roads
Road surface of high dust potential	Road surface of low dust potential
High no. HDV movements	Low no. HDV movements
High total length of haul roads.....	Low total length of haul roads
Uncontrolled vehicle speed	Controlled (low) vehicle speed

E: Mineral Processing

LARGE	SMALL
Raw material of high dust potential	Raw material of low dust potential
End product of high dust potential	End product of low dust potential
Complex or combination of processes.....	Single process
High volume material processed.....	Low volume material processed



F: Stockpiles/Exposed Surfaces

LARGE	SMALL
Long term stockpile.....	Short term stockpile
Frequent material transfers.....	Infrequent material transfers
Material of high dust potential	Material of low dust potential
Ground surface unconsolidated/un-kept	Ground surface hardstanding/clean
Stockpiles close to site boundary.....	Stockpiles well within quarry void
Large areas of exposed surfaces.....	Small areas of exposed surfaces
High wind speeds/low dust threshold.....	Low wind speeds/high dust threshold

G: Off-Site Transportation

LARGE	SMALL
High No. HDV Movements.....	Low No. HDV Movements
Unconsolidated Access Road.....	Paved Access Road
Limited/No Vehicle Cleaning Facilities.....	Extensive Vehicle Cleaning Facilities
Small Length of Access Road	Large Length of Access Road

Appendix D: Estimation of Dust Magnitude Emissions

Demolition

The dust emissions magnitude for demolition is expected to be 'Small', this is based on the low likelihood of significant dust generation during the demolition of the existing IBA processing plant. The overall scale of demolition is limited, and much of the plant is formed of material with a low-dust potential (i.e. metal).

Earthworks

The dust emissions magnitude for earthworks is expected to be 'Small', with a total site area of approximately 10,116 m².

Construction

The dust emissions magnitude for construction is expected to be 'High', with the total building volume of both the plant enclosure and the enhanced IBA recovery facility building assumed to be between over 75,000 m³. The process, combined with the movement of construction machinery and potential storage of materials on-site, present a moderate risk of dust generation.

Trackout

The dust emissions magnitude for trackout is expected to be 'Small'. This is based on the anticipated daily movements being a maximum of 18 for the construction phase. Contributing factors to this include the low volume of daily vehicle movements and assumption that hard surfacing of site access routes and wheel washing facilities in place to minimise dust trackout.

Appendix E: Estimation of Residual Source Emissions

Materials handling

There is a high risk of dust propagation from materials handling using HGVs unless appropriate mitigation measures are applied. Dust may be generated from downward-blowing exhausts and cooling fans as well as air turbulence caused by the movement of vehicles so these should be avoided where possible.

Imported IBA (typically damp on arrival) are stockpiled onsite, material is then picked up by loading shovel to feed into the processing plant in the middle of the site. The anticipated plant machinery for the IBA processing includes 1x shovel, 1x excavator, 1x tractor, 1x forklift and 1x telehandler that is used occasionally. The proposed machinery to be used within the enhanced processing facility includes 2x forklifts (one in wet processing and one in dry processing), 1x shovel and 2x tele truck/forklift.

Given that all materials will be transported by mobile plant over a small area – albeit not by conveyors – and that the enhanced processing facility is fully enclosed, with reference to the guidance reproduced in Appendix C, the Residual Source Emissions from on-site transportation after mitigation is applied are considered to be **Small**.

On-site transportation

Given that all materials will be transported by mobile plant and not by conveyors and that there is proposed to be 143 vehicle movements per day (in and out), with reference to the guidance reproduced in Appendix C, the Residual Source Emissions from on-site transportation after mitigation is applied are considered to be **Medium**.

Material processing

IBA processing will take place at a fixed screening plant which is partially enclosed and processing within the enhanced processing facility is fully enclosed. IBA processing will take place in the centre of the site with a loading shovel and excavator. The scale of the operation is relatively small (220,280 tonnes per annum), therefore, with reference to the guidance reproduced in Appendix C, the Residual Source Emissions the residual source emissions from mineral processing are considered to be **Small**.

Wind scouring of exposed surfaces and stockpiles

As a general rule, there is a moderate risk of wind-blown dust propagation from dry surface layers of stripped surfaces, freshly constructed bunds prior to seeding and from bare ground.

Stockpiles of imported and processed materials will be kept within the site and away from receptors.

During dry windy conditions, visible wind-blown dust may be raised from large areas of stockpiles and other unsurfaced areas particularly where the materials are loose or have been disturbed by traffic or other operations.

With these points in mind, and with reference to the guidance reproduced in Appendix C, the Residual Source Emissions from wind-whip from bare ground and exposed surfaces after mitigation is applied are considered to be **Medium**.

Off-site transportation

There is a risk of dust generation as a result of off-site transportation unless the appropriate mitigation measures are put in place. Experience and guidance indicate that dust as a result of track-out from sites can cause an impact up to 250 m from a site entrance. Any receptors within 250 m of this distance have been assessed for dust impact as a result of off-site transportation. HGVs leaving site will pass through a dedicated wheel wash to remove any dirt or debris on their wheels and undercarriage.

Given that all materials will be transported by mobile plant and not by conveyors and that there is proposed to be an additional 26 vehicle movements per day, with reference to the guidance reproduced in Appendix C, the Residual Source Emissions from on-site transportation after mitigation is applied are considered to be **Small**.

APPENDIX 12

Dust Management Plan



DUST MANAGEMENT PLAN

for an Incinerator Bottom Ash Recycling Facility at

**A303 Enviropark
Drayton Road
Barton Stacey
Hampshire
SO21 3QS**

Report Date:
September 2025

Dust Management Plan – Version Log

Version No.	Version date	Description
Original (v1)	May 2024	New Dust management plan as produced in support of environmental permit variation replacing old Dust & odour management plan Jan 2022.
V2	July 2024	Update to include additional information from EA technical assessment report
V3	December 2024	Update to include additional information from EA technical assessment report ENVAUP/FB3805GN/01
V4	June 2025	To include A303 replant and Enhanced IBA recovery facility
V5	September 2025	To include updated requested EWC codes

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1. INTRODUCTION

Background

- 1.1 This Dust Management Plan (DMP) has been prepared by Fortis IBA Limited (the 'Operator') to support an environmental permit issued by the Environment Agency (EA) for the storage and treatment of incinerator bottom ash (IBA) at A303 Enviropark, Drayton Road, Barton Stacey, Hampshire, SO21 3QS (the 'Site').
- 1.2 IBA is delivered to the Site before undergoing dry processing and treatment to remove recyclable material and convert the residue into a marketable product in the form of a sustainable recycled aggregate known as IBA Aggregate (IBAA). This product will then be exported from the Site for re-use in construction projects.
- 1.3 This DMP is being updated to incorporate the installation of a replacement IBA processing plant to replace the current one hereby referred to as the "replant" and the inclusion of a new installation adjoining to the East of the current site hereby referred to as the "enhanced IBA recovery facility" for further refinement of non-ferrous metals.
- 1.4 The Site lies approximately 7 km Southeast of the town of Andover and is centred at National Grid Reference SU 43840 42766. The village of Longparish lies approximately 1.2km to the north and the village of Barton Stacey approximately 1.7km to the south. There are two residential receptors located at 350m downwind and 900m upwind from the Site.
- 1.5 Fortis hold 6 monthly site liaison committee meetings with a range of stakeholders, including, regulatory authorities, parish councils, local businesses and residents to ensure good relations are maintained and if either has any cause for concern, they all have the relevant contact details.

1.6 The Site is not located within a current or proposed Air Quality Management Area (AQMA). The nearest AQMA is approximately 12km to the south of the Site on Winchester high street.

1.7 A Site layout plan is presented on Drawing No DR-0007 S5-P1. Appendix 5

1.8 This report has been completed in accordance with the following EA guidance:

- <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#emissions-management-plan>
- <https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities/6-emissions-control>

Implementing the DMP

1.9 Martyn Jones (General Manager), Wayne Read (Site Manager) and Lee Finlay (Assistant Site Manager) are all technically competent managers (TCM) and will ensure that the procedures in this DMP are adhered to. There will always be at least one of the above-mentioned people on site during working hours

1.10 The TCM has the authority to modify or stop operations to reduce emissions on a temporary or permanent basis until the risk of emissions has subsided.

1.11 The TCM will ensure that all members of staff are aware of the dust management procedures.

1.12 Staff at all levels will receive the necessary training and instruction in their duties relating to the control of all operations and the potential sources of dust emissions.

Review of the DEMP

1.13 This DEMP will be reviewed as follows:

- When changes are made to your site, operations or equipment that affect the activities covered by your permit.
- Whenever an application is made to change ('vary') the permit.
- After any accident, complaint or breach of your permit; and
- If a new environmental problem or issue is encountered, and you have implemented new measures to control it.

1.14 Any revisions or changes will be logged in a revision history table at the beginning of the document.

2. OPERATIONS

Existing Development

Waste Types

- 2.1 IBA is characterised as non-hazardous waste and typically comprises a combination of metal, glass, aggregate, clinker and ash from the EfW burning process.
- 2.2 The waste types to be accepted at the Site are listed in Table 1 below.

Table 1: Proposed Waste Types

Table S2.2 Permitted waste types and quantities for storage and treatment under activities AR1 and AR2 of Table S1.1.	
Maximum quantity	The quantity of wastes listed below, accepted at the site shall be less than 220,280 tonnes a year.
Waste code	Description
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and waste for industrial use
19 01	Wastes from incineration or pyrolysis of waste
19 01 12	Bottom ash and slag other than those mentioned in 19 01 11
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 02	Waste that as ferrous metal is classes as absolute non-hazardous code, wastes from the mechanical treatment of waste
19 12 03	Waste that as non-ferrous metal is classes as absolute non-hazardous code, wastes from the mechanical treatment of waste
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11.

- 2.3 The maximum quantity of wastes permitted to be imported shall be less than 220,280 tonnes per year, with no more than 72,000 tonnes of IBA prior to treatment stored at any one time.
- 2.4 The maximum quantity of IBAA, ferrous, non-ferrous metals to be stored on site at any one time is approximately 78,000 tonnes.
- 2.5 No waste shall be stored for more than 12 months.

Waste Acceptance - IBA

- 2.6 Materials will be delivered to site via articulated tipper truck directly from the EfW facilities and will undergo a visual check upon tipping in the respective tipping area to ensure it complies with the approved waste transfer note and the environmental permit.
- 2.7 The incoming IBA always has an elevated moisture content (approximately 22% to 24%) on arrival at Site as a result of the quenching process at source and therefore has a negligible risk of generating dust. In the extremely unlikely case that dusty wastes arrive on site the load will be dampened down using a tractor and bowser.

- 2.8 Should the incoming IBA be seen to contain unburnt waste, the TCM will be informed and the load quarantined. A non-conformance is logged. Photographic evidence is sent to the energy from waste (EFW) operator and a loss on ignition (LOI) test is requested. The LOI threshold is a maximum of 5% by weight and forms part of the IBA classification testing carried out by the EFW operators. LOI test results typically range between 2.5% - 3%, well within the 5% limit.

Waste Acceptance – IBA Recovery

- 2.9 Material will be delivered to the Enhanced IBA recovery facility via articulated tipper truck directly from the producing Fortis site. Each load will undergo a visual check upon tipping in the respective tipping area to ensure it complies with the approved waste transfer note and the environmental permit.
- 2.10 Each load will be tipped in its relevant receiving bay inside of the IBA recovery facility reception area with the roller door closed to retain any dust emissions.
- 2.11 Material being received from the adjacent processing plant at the A303 will be transported via skip and telehandler which will be inspected once tipped.

Description of Treatment Process - Replant

- 2.12 IBA material will be deposited directly into stockpiles and stored in this form for six to twelve weeks to allow hydration and carbonation reactions to occur. These reactions take place and reduce the high moisture level and also result in a reduction of pH levels.
- 2.13 The maturation process is exothermic and results in stockpiles heating up to about 70°C. During the maturation period water from the onsite rain gun system will periodically spray water across the top of the stockpiles to create a “thatching of the stockpiles to stop any potential windblown emissions.
- 2.14 Processing through the replant comprises the screening and removal of metals before the material is re-blended and exported from the site as an IBAA. Processing and treatment (conveying and screening) will take place within a steel clad building as shown on drawing number (C10101C) Appendix 6.

A loading shovel feeds the IBA into a feed hopper where the belt feeder then regulates the flow rate of material entering the plant.

- 2.15 The IBA will then flow under an overband magnet to remove large ferrous pieces and over a primary screen where the 65 to 300 mm fraction will be retained before discharge to a picking station where motors, pieces of Fe, NFe and unburnt material will be removed. The remaining material will then be crushed and re-fed back into the process.
- 2.16 On the primary screen, particle sizes less than 65 mm will be discharged under another overband magnet for more recovery of ferrous metals. The residual stream of material is

then fed into a series of single deck screens where the IBA is separated into a 36-65 mm fraction a 12-36mm fraction a 4-12mm fraction and a 0-4mm fraction. Each of the four fractions is then treated separately in dedicated lines for recovery of Fe and NFe metals.

- 2.17 Each of the four fractions is treated using a head drum magnet followed by ECS to facilitate passing of the IBA to increase the percentage recovery of NFe metals.
- 2.18 The residual material from each of the fractions produced is discharged into a common storage area. This mixture of inert materials with a known particle size comprises the IBA Aggregate (IBAA) which will be produced by the replant.
- 2.19 This is marketed and sold successfully across the construction industry being exported from the site by HGV for use in appropriate construction projects.
- 2.20 The Site will be operated in accordance with EA and Environmental Services Association¹ (ESA) guidance for IBAA operations to ensure there is no impact on human health or the environment.

Description of Treatment Process – Enhanced IBA Facility

- 2.21 The incoming material is tipped into the relevant storage bay depending on size and originating site.
- 2.22 Depending on the size of the material -12mm material is processed through a dry separation process and the +12mm material is processed through the wet separation process.
- 2.23 The dry separation process including running all the material through a mill to try and break up all the non-metallic pieces, this is dropped through a “Z sifter” to remove all the light dust particles and onto a sieve to split into a 0-6mm and 6-12mm fractions.
- 2.24 Both the 0-6mm and 6-12mm material is then fed into separate hoppers and onto conveyors into the final sizing screen to split the material into the correct sizes for the air-tables.
- 2.25 The air tables use compressed air to create an airbed which will carry away the heavy material from the light material.
- 2.26 The heavy material is now ready for export.
- 2.27 The light material is then fed over an Eddy current separator (ECS) to remove any further contamination before it is ready for export.

¹ <http://www.esauk.org/what-we-do/raising-standards/guidance/iba-guidance>

- 2.28 The 12-50mm is fed into the wet processing plant where it goes through a washing barrel to remove any -2mm material and fed directly into a dense media barrel which will separate the heavy metals from the lighter material.
- 2.29 The heavy material exits the dense media barrel and is dewatered before being conveyed into a skip which is then ready for export.
- 2.30 The lighter material passes over and ECS to remove further contamination before it is ready for export.

Overview of Emissions Controls

- 2.31 Enclosing the main site is a concrete retaining wall 2.1m in height for the most part but also at 0.4m high as a kerb which will act as a retaining feature for surface water runoff and fugitive emissions of the main site. The enhanced IBA recovery facility will be in a building with the only paved area being kerbed to act as a retaining feature for surface water runoff. The only place where there will not be a retaining wall is the access/ egress to and from the site.
- 2.32 The replant is housed within a steel clad structure. A dust hood is located at the material loading point into the replant, preventing fugitive emissions from the loading area. Each transfer point of the IBA replant is enclosed so that the transfer between conveyors does not create dust emissions.
The replant building does not contain any dust extraction but the building is kept clean by way of an industrial vacuum which is hired, a number of times per year to clean down the inside of the structures where necessary. The replant building will have standard pedestrian doors allowing access and egress for authorised staff to check the running of the plant. All pedestrian doors or roller shutter doors that will be programmed to auto close.
- 2.33 The enhanced IBA recovery facility is made up of three areas, A reception area, a wet plant and a dry plant. All areas are contained within a steel clad structure to contain any dust emissions. The dry plant has within the building dust extraction on various points throughout the process. Within the wet plant process all material is washed and screened so there will be no dust emissions. The reception area will have a misting system and some dust extraction for the loading hoppers. All access and egress is either by pedestrian doors or roller shutter doors that will be programmed to auto close.
- 2.34 With regards to the stockpiled wastes, the standard method used to reduce the potential impact from dust emissions is to keep windrows damped down. This will also promote carbonation and cementation of the fine particles by coating particle surfaces and partial filling of pore space. The crust that forms will mitigate airborne dust emissions until the stockpile is disturbed and is known as thatching.
- 2.35 All stockpiled material in the enhanced IBA recovery facility are within an enclosed building so will not cause any dust emissions to air.

- 2.36 A bespoke dust suppression system has been designed by Wright Rain Environmental who are a leading supplier of specialist dust suppression systems in the aggregate and waste industries.
- 2.37 2 x 20,000l water tanks will provide the water for the dust suppression system. The tanks are linked together via 50mm pipework and are fed from an electrical submersible 2" pump and float system permanently located within the site lagoon. A spare pump is held in stock should the main pump fail.
- 2.38 The dust suppression system consists of an electrical 415v 22SV07F075 T/D Lowara multistage pump controlled by a Hydrovar controller maintaining a continuous pressure of 7bar throughout the rain gun system with a typical water usage of between 3000l/h – 10,000l/h.
- 2.39 Should there be a power failure we have the ability to switch to generator power within 4 hours, at this point the processing plant would not be operational and no breaking out of material or material processing would take place.
- 2.40 8 x Senior double nozzle (18mm) impact rain guns (specification appendix 7) are located around the back wall of the site, positioned to provide coverage of all stockpiled IBA. There is an additional 2" lay-flat hose which can be moved up and down the system depending on the location of work to assist with localised dust suppression.
- 2.41 The site is constructed so all surface water is channelled towards and captured within the on-site lagoon, the lagoon can store up to 3596m³. There is a unlicensed abstraction borehole which is permitted to pull 20m³ per day and there is a 25mm towns water feed to assist during long periods of hot/dry weather.
- 2.42 The dust mitigation measures are shown on the drawing 'Dust Suppression Layout plan.' in Appendix 1. This drawing shows the reach of the spray guns and the connection points for mobile spray gun which provide full coverage of the Site. The operation of the spray guns can be controlled by using defined and schedule preset programmes for the timed activation of the spray guns or manually by controlling single spray guns for a more targeted approach.
- 2.43 The front field IBAA storage area will also have a rain gun system once the development has been completed. The estimated completion date is September 2025.
- 2.44 Currently there is 1 x moveable rain gun in the front field located on top of the main stockpile to add moisture to the top of the pile while the tractor and water bowser dampen down the working face.
- 2.45 The enhanced IBA recovery facility will retain rainwater from the building roofs and will be used as dust suppression for the IBA recovery area that is not within a building.

- 2.46 A number of water tanks (each 30,000 litre capacity) are proposed to be positioned adjacent to the buildings for clean water storage and re-use onsite. It is proposed that excess clean water will drain to a local soakaway, should it not be required for use.

Potential Dust Sources

- 2.47 Identified sources for fugitive dust emissions from the Site should no mitigation measures be implemented are:
- Vehicles entering and/or leaving the Site with mud on wheels and tracking dust on to or off the Site.
 - Vehicles and plant moving around the site kicking up dust
 - Wind whipping from stockpiled waste.
 - Breaking out of windrow stockpiles to transfer matured materials for physical treatment.
 - Blending damp material with drier material from the core of the stockpile, prior to treatment.
 - Physical treatment of waste, including wastes dropping from conveyors into stockpiles; and
 - Particulate emissions from the exhaust of vehicles/plant/machinery on Site.

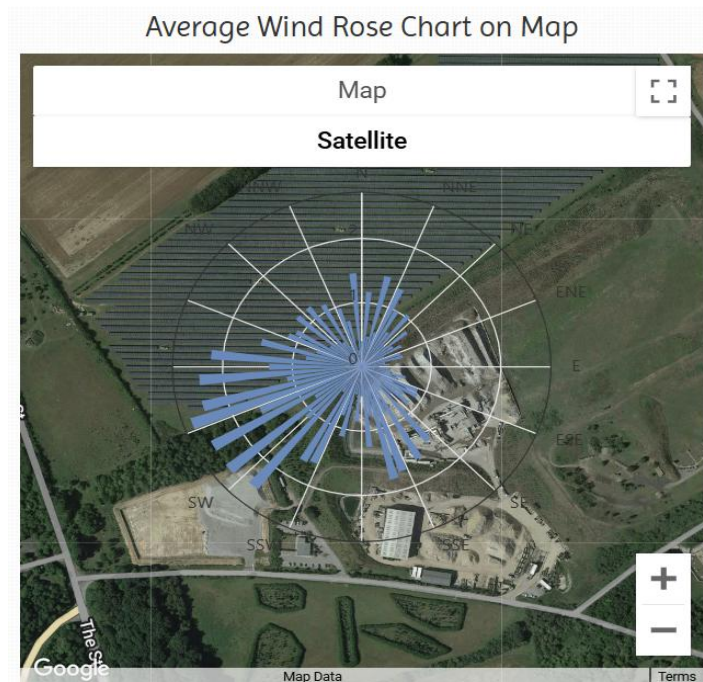
Meteorology

- 2.48 Unlike many other atmospheric pollutants, the generation of fugitive dust is particularly dependent upon weather conditions and the nature of the operations.
- 2.49 The prevailing meteorological conditions at any site will be dependent upon many factors, including its location in relation to macroclimatic conditions as well as more site specific, microclimatic conditions.
- 2.50 The most important climatic parameters governing the release and dispersal of emissions are:
- **Wind direction** determines the broad transport of the emission and the sector of the compass into which the emission is dispersed; and
 - **Wind speed** will affect the ground level emission by increasing the initial dilution of pollutants in the emission. It will also affect the potential for entrainment of dust.

Local Wind Speeds and Directions

Figure 1 shows data in form of a wind rose from the Osiris real time dust monitor on the site at the A303. This unit measures average wind speed and directions from the site between 1/7/2024 – 31/12/2024 and so is the most appropriate source of data available.

Figure 1: Windrose from Osiris Unit



The above wind rose demonstrates that the prevalent wind blows from the Southwest direction with an average windspeed of 2.40m/s or 5.36mph.

According to the Beaufort wind force scale², winds exceeding 13mph are taken to be capable of entraining dust from surfaces

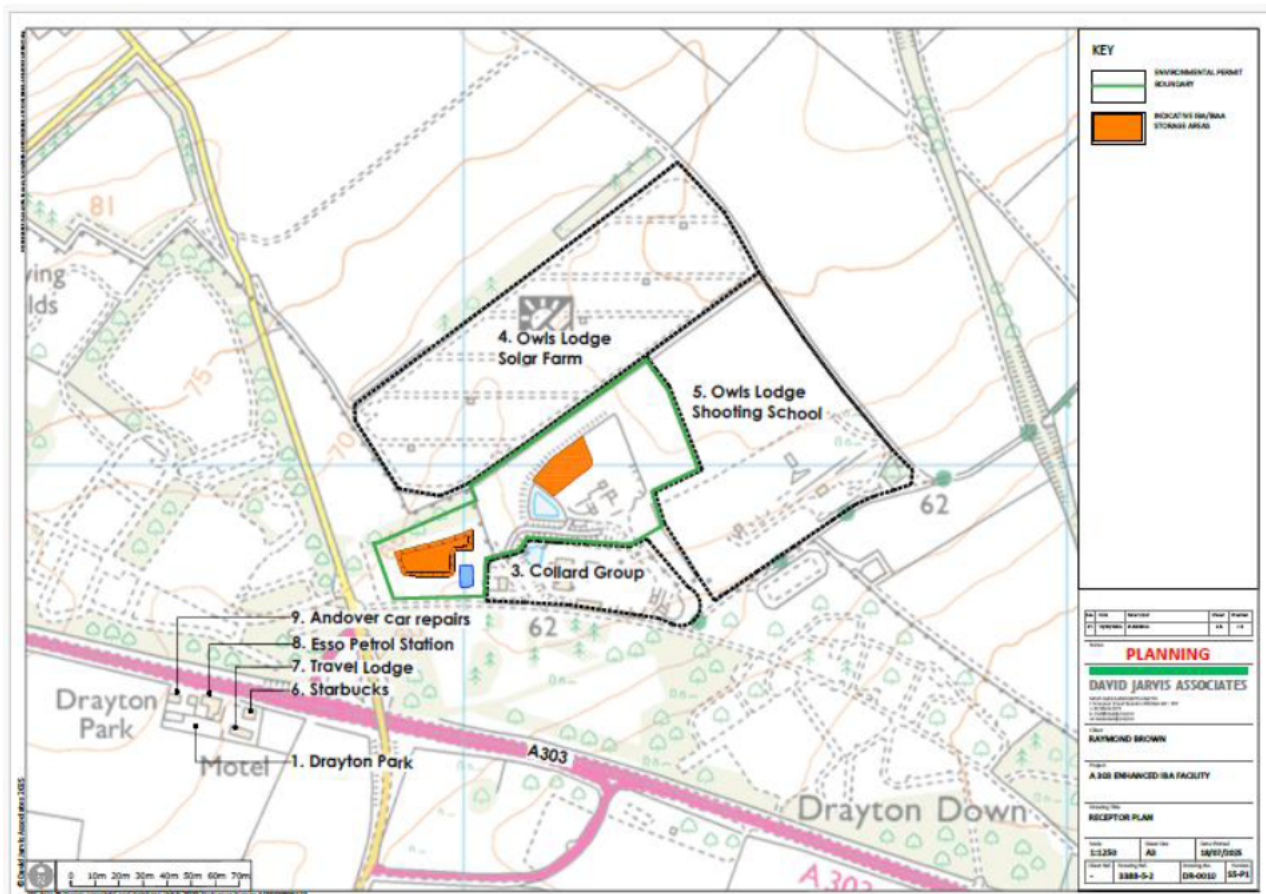
² <https://www.rmets.org/resource/beaufort-scale>

3. POTENTIAL SENSITIVE RECEPTORS

- 3.1 Locations with a high sensitivity to dust include habitats sites, hospitals, schools and convalescent facilities. These are areas which are considered to be more susceptible to the adverse effects of exposure to high levels of dust and particulates.
- 3.2 The distance from the source to the receptor location plays an important role in the potential impact experienced as airborne dust: detection concentrations fall off rapidly with increasing distance from the source. The very largest dust particles usually only travel 10m to 20m before being deposited and the vast majority of dust is deposited within 100m of the source.
- 3.3 The closest residential receptor to the Site has been identified as Drayton Manor park Homes, which is located approximately 350m South West of the replant area, on the opposite side of the A303 dual carriageway.
- 3.4 Other potentially sensitive receptors within 1000m of the Site are presented in Table 2 below and shown on Figure 2.

Table 2: Sensitive Receptor Locations

ID	Receptor	Description	Direction from Permit Application Boundary	Distance from Permit Application Boundary (m)	Location in Relation to Prevailing Wind Direction
1	Drayton Manor Homes	Residential	South West	350	Downwind
2	Residential building	Residential	North	900	Upwind
3	Collard Group	Commercial	South	40	Downwind
4	Owls Lodge Solar Farm	Commercial	North	42	Upwind
5	Owl Lodge Shooting school	Commercial	East	50	Upwind
6	Starbucks	Commercial	South West	295	Downwind
7	Travelodge	Commercial	South West	314	Downwind
8	Esso petrol station	Commercial	South West	326	Downwind
9	Andover car repairs	Commercial	South West	350	Downwind

Figure 2: Sensitive Receptor Location Plan

Other Dust/Particulate Emitting Operators

- 3.5 Other potential dust/particulate emitting operators identified within proximity of the Site are presented in Table 3 below and shown on Figure 3.

Table 3: Other Dust/Particulate Emitting Operators

ID	Operator	Type of Business	Processes	Distance from Application Site (m)
1	Collard Group	Waste recycling facility	Wood chipping, aggregate crushing	40
2	Owl Lodge shooting school	Clay Pigeon shooting	Clay pigeon pieces, dust from smashing	50
3	Forest Edge kart club	Go karting track	Vehicle exhaust, tyre crumb & dust and dirt	380
4	A303 Dual Carriageway	Main road	Vehicle exhaust, tyre crumb & dust and dirt	190

Figure 3: Other Dust/Particulate Emitting Operators

- 3.6 Vehicle movements associated with the operations of local businesses as well as users of the nearby A303 & A34 road are likely to produce fugitive emissions from vehicle movements and point source emissions from exhausts.
- 3.7 It should also be noted that events such as construction works and harvesting, which are temporary, may from time to time generate elevated dust levels and soiling over short durations.
- 3.8 Due to the distance between sensitive receptors and the Site, together with employed mitigation, cumulative dust effects are not anticipated from the waste operation. Best practice mitigation measures are included in Section 4 within this document and will be implemented at the Site.

4. MITIGATION AND MONITORING

Mitigation Measures

- 4.1 As mentioned previously, the wastes to be treated on Site are fully saturated and therefore have a negligible potential to create dust when handled.
- 4.2 Table 4 presents the source pathway receptor model for the Site. Table 4 applies to all receptors listed in Table 2.

Table 4: Source-Pathway-Receptor Routes

Source	Pathway	Type of impact	Where relationship can be interrupted
Vehicles entering and/or leaving the Site. Suspended solids in puddle at the bottom of access ramp	Tracking dust on wheels and vehicles, then mud dropping off vehicles when dry Suspended solids being carried up the ramp on vehicles and drying out creating dust when driven over from exiting vehicles	Visual soiling, also consequent resuspension as airborne particulates affecting neighbouring businesses	Remove mud before vehicles leave site. Use of road sweeper. Provision of bowser on site to provide surface dust suppression. Provision of dampening water on site entrance roadway. Use of Wheel wash before leaving site
Debris	Falling off lorries	Visual soiling, also consequent resuspension as airborne particulates	Cover lorries before leaving site. Use of road sweeper.
Road vehicles moving on site and tipping materials	Suspension as airborne particulates	Visual soiling and airborne particulates	Use of tractor and bowser to keep the roadways dampen down. Incoming IBA to have a high moisture content. Tipping materials into sheltered areas.
Wind whipping from stockpiled waste,	Suspension as airborne particulates	Visual soiling and airborne particulates	Use of water cannons / rain guns to create thatching and sealing off of stockpiled wastes
Breaking out and preparation of windrow stockpiles, (riddling)	Suspension as airborne particulates	Visual soiling and airborne particulates	Use of water cannons / rain guns to dampen IBA Ensuring operators know how to break out material with the least amount of particulate release using wet to dry movements to create a suitable moisture content for moving material and using the stockpiled waste as a barrier to receptors. Once material is of suitable moisture, riddling to be carried out at minimum heights (below the cab) as per P05 Emissions Control Procedure
Blending of material and loading out of processed waste	Suspension as airborne particulates	Visual soiling and airborne particulates	Wetting of wastes using dust suppression units Ensure material is within the moisture range of 14-20% so to ensure no particulate release during blending or loading operations as per P05 Emissions Control Procedure

Physical treatment of waste. Loading of the hopper Exiting from IBAA conveyor	Suspension as airborne particulates	Visual soiling and airborne particulates	All physical treatment is carried out within a enclosure. Material is within the moisture range of 10-16% before the FEL loads the hopper slowly and ensures they are not tipping into an empty chamber as per P05 Emissions Control Procedure. The drop height from the conveyor to the existing stockpile is kept to a minimum, the conveyor shroud contains a water halo to add water to the IBAA before it is dropped
Loading of vehicles with IBAA	Suspension as airborne particulates	Visual soiling and airborne particulates	Face of IBAA stock pile is kept within the moisture range of 14-20% by plant operators using dust suppression system or bowser Drop heights minimised by plant operators when loading as per P05 Emissions Control Procedure
Loading of vehicles with Metals Stocktaking of metals in bunkers	Suspension as airborne particulates	Visual soiling and airborne particulates	Bunkered metal stocks kept moist by plant operators using dust suppression system or bowser. Drop heights minimised by plant operators when loading as per P05 Emissions Control Procedure
Generators and Vehicle exhaust emissions	Atmospheric dispersion	Airborne particulates	Regulatory controls and best- practice measures to minimise source strength.

4.3 Table 5 provides a dust emissions risk assessment for the site detailing each scenario where dust could be released.

Table 5: Dust emissions risk assessment

	Who may be harmed and how?	Sev	Control Measures	Lky	R/R
Unloading and storage of IBA and other mixed wastes	Environmental breach due to dust emissions	M	- IBA is imported to site with a moisture content of approx. 22-25% - The rain gun system is used to add additional water over the top of the IBA stockpiles as they dry out to create “thatching” and stop wind whipping - Other mixed wastes to be tipped inside reception area with door closed	L	L
Breaking out of material	Environmental breach due to dust emissions	M	- When breaking out of material the wet outer crust of the stockpile is carefully mixed with the drier core material to make the IBA into a handleable material. - Additional water sprays are used to maintain the optimum moisture range of 10-16% should the core material be too dry and dusty - Additional rain guns and tractor and bowser are available should it be needed.	L	L
Treatment of IBA	Environmental breach due to dust emissions	M	- The IBA is prepared through experience to the sufficient feed quality and fed into the processing plant. - All replant is within a steel-clad structure to reduce dust emissions - The final IBAA product will be passed through water spray points before it is stockpiled	L	L
Transfer of IBAA	Environmental breach due to dust emissions	M	- Once the WM3 results have been established the IBAA is transferred to the front field stocking area. - The IBAA is left to stand to reduce the pH - Water is added via water sprays over the top of the IBAA stockpile to again create thatching.	L	L
Loading of IBAA	Environmental breach due to dust emissions	M	- Water is added via tractor and bowser to the front face of the stockpile in the morning to maintain the optimum moisture range of 14-20% as the material is prepared for the day - Loading of non-ferrous metals within the covered/canopy area of the building.	L	L

Table 5: Dust emissions risk assessment

	Who may be harmed and how?	Sev	Control Measures	Lky	R/R
Traffic movements around site	Environmental breach due to dust emissions	M	- A tractor and bowser is used throughout the day for adding water to trafficked areas to minimise the dust created from dried mud on the roads. - Use of wheel-wash to minimise mud being carried up the haul road and drying - Use of speed limits around site	L	L
Traffic movements up and down the haul road	Environmental breach due to dust emissions	M	- A tractor and bowser is used throughout the day for adding water to the haul road to minimise the dust created from dried mud on the roads. - Use of wheel-wash to minimise mud being carried up the haul road and drying - Use of speed limits around site	L	L

Table 6: Summary of Mitigation Measures

Abatement Measure	Description / Effect	Use on Site	Trigger for Implementation
Hardstanding of unmade ground	A hard surface as opposed to unmade (rocky or muddy) ground within the site and on-site haul roads. This will reduce the amount of dust generated at ground level by vehicles and site activities.	The storage and treatment of wastes will take place on an impermeable surface with a sealed drainage system. The Site surfacing will allow easy cleaning and prevent wind-whipping.	To be implemented throughout the lifetime of the Site as standard practice. Visual inspections will be undertaken of Site surfacing to ensure its continued integrity.
Sizing of operations	Optimising the amount of activity on site as well as associated traffic movements will result in a low risk of emissions and re-suspension of particulates from a site.	The operation is sized appropriately, with particular regard to dust, noise and vehicle movements and has been subject to Environmental Impact Assessment Annual throughputs will be limited to ERF outputs.	Throughout the lifetime of the waste operation, any conditions in the planning permission and environmental permit relating to pile sizes/volumes/throughputs will be adhered to.

Site / process layout in relation to receptors	Locating particulate emitting activities at a greater distance from receptors may reduce receptor exposure.	The Site is located in an area with an absence of sensitive receptors.	n/a
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	Materials will be exported from Site in sheeted HGV's.	To be implemented throughout the lifetime of the Site as standard practice.
Site speed limit, 'no idling' policy and minimisation of vehicle movements on site.	Reducing vehicle movements and idling will reduce emissions from vehicles. Enforcement of the speed limit will reduce re-suspension of particulates by vehicle wheels.	Speed limit of 10 mph applied to all plant and vehicles operating on the site.	To be implemented throughout the lifetime of the Site as standard practice.
Physical barriers	Provision of a physical barrier between the Site and identified sensitive receptors.	A concrete retaining wall 2.1m high and bunding planted with a mix of native species woodland comprising 35% tree species and 65% understory shrub species will enclose most of the storage areas allowing only the minimum amount of stockpile above this. The use of buildings for the replant and enhanced IBA Recovery facility will improve operational control and environmental management.	To be implemented throughout the lifetime of the Site as standard practice.
Minimisation of waste storage heights and volumes on site. Enclosing treatment plant and conveyers.	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Reducing storage volumes should reduce the surface area over which particulates can be mobilised. Enclosing processes will further reduce dispersion.	In accordance with the planning permission and the bespoke environmental permit maximum height of IBA stockpiles is 8m and of IBAA is 5m. Stockpiles are stocked above the height of the concrete retaining walls but are subjected to the rain gun system in order to create the thatching and remove the wind whipping effect Stockpiles when weathered "thatch over" and while undisturbed present minimal risk of dust nuisance.	To be implemented throughout the lifetime of the Site as standard practice. Throughout the lifetime of the waste operation, any conditions in the planning permission and environmental permit relating to pile sizes/ volumes/throughputs will be adhered too. The replant will be full enclosed. The processing plant has been designed with minimal drop.

All site vehicles will be maintained in accordance with the manufacturer's instructions.	To ensure optimum operation conditions. Plant and vehicles will be regularly serviced and equipped with effective exhausts to minimise exhaust emissions.	All vehicles. Mobile plant would be fitted with vertical exhausts.	To be implemented throughout the lifetime of the Site as standard practice.
Ceasing operation during high winds if deemed necessary.	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation if necessary at these times may reduce peak pollution events.	Weather station is in place to monitor wind speeds.	To be implemented throughout the lifetime of the Site as standard practice. Operations may be temporarily ceased at the discretion of the Site manager should wind speeds exceed 13mph and there are visible emissions from stockpiles. The on Site weather station and daily visual monitoring will be utilised to monitor adverse weather conditions.

Remedial Measures			
Water suppression with rain guns	Installation of rain guns around sites, at potential emission points like stockpiled waste and operational areas. Very effective at controlling point source emissions of dust and particulates.	The main method of dust suppression to be utilised on Site is through the implementation of rain guns, which will cover all waste storage and operational areas.	To be implemented throughout the lifetime of the Site as standard practice. A bespoke dust suppression system has been designed by Wright Rain Environmental, refer to Appendix 6 for further details. The guns will be set up using a programable timer, set to run automatically. The system also has a rain sensor and manual override. The manual override will be for targeted use if required (i.e. should dust be seen to be entrained from stockpiles during daily inspections). From November to February the guns will be manually controlled as and when required following daily visual inspections of stockpiles and surfaces (i.e. should dust be seen to be entrained from stockpiles).
Use treatment plant within their respective design capacity and maintaining good standards of all plant and equipment.	To minimise dust emissions during the physical treatment process.	Screening plant. De-dusting extraction equipment for the enhanced IBA Recovery facility.	To be implemented throughout the lifetime of the Site as standard practice.
On-site sweeping	Sweeping is effective in managing larger debris and dust but may also cause the mobilisation of smaller particles. Road sweeping vehicles damp down dust and particulates whilst brushing and	Employed to prevent off Site emissions as part of general Site maintenance. There are daily inspections and regular maintenance of hard surfaces.	To be undertaken as often as necessary to keep roads clear of visible debris or dust during operational hours, in accordance with the day to day requirements of the Site

	collecting dust and particulates from the road surface, particularly at the kerbside.		
Road sweepers	Road sweeping vehicles damp down dusts whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside.	To be employed in order to prevent mud on public highway.	As above.
Wheel wash	All vehicles leaving the site are subject to driving through the wheel wash to ensure the minimum amount of dirt and dust leaves the site on the underside of the vehicles.	The wheel wash is a surface mounted system that is fed via town's water and is operated by a sensor at one end that triggers the 16 nozzles to spray 300l/h @ 2 bar to clean the tyres and underside of the vehicles.	To be implemented throughout the lifetime of the Site as standard practice for all HGV vehicles
Good Site Management	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	All staff.	To be implemented throughout the lifetime of the Site as standard practice.
Staff training	Provide training to the site personnel on dust mitigation. Training should also cover 'emergency preparedness plans' to react quickly in case of any failure of the planned dust mitigation.	All staff.	To be implemented throughout the lifetime of the Site as standard practice.
Communication	Maintain good communication to help alleviate anxieties between the Operator and the surrounding communities.	All staff.	To be implemented throughout the lifetime of the Site as standard practice.

Emissions Monitoring

- 4.4 An automatic weather station is installed at the Site offices to provide data on weather conditions, precipitation, wind speed and direction. The weather station will be used to support Site management in proactively responding to adverse conditions which may present an increased risk of wind-blown fugitive dust.
- 4.5 2 x Osiris real time dust monitors are installed on the Northern boundary between the site and the solar farm, the monitors are set to send an alert between the hours of 6am – 8pm Monday to Friday and 6am – 2pm on Saturdays should the levels of TSP exceed $200\mu\text{g}/\text{m}^3$ in any direction from 40° and 230° for more than 5 minutes continuously. We feel there is very little need to have alerts outside of these hours as the biggest risk of dust emissions is while we are handling the material.
- 4.6 There will be no real time dust monitors proposed outside of the enhanced IBA recovery facility as advised by our Air quality consultants – Dust Scan Ltd. The use of a fully enclosed building, fitted with de-dusting extraction equipment will provide the appropriate dust management.
- 4.7 Current mitigation measures in the front field include only handling IBAA which has a moisture content within the optimal range (14-20%) The IBAA stockpiles are kept at a maximum of 5m and handling of IBAA is kept to a minimum.
- 4.8 A single rotating sprinkler adds water to the crest of the stockpile so as the stockpile is used the falling IBAA is within the optimum moisture content (14-20%) and so doesn't create any fugitive emissions.
- 4.9 A tractor and bowser is used to dampen the face IBAA if the IBAA is outside of the optimal moisture content range
- 4.10 During the development of the front field, it will be necessary to keep the site partially open to be able to load lorries, this "open" area will rotate as the site is developed. We will continue with the mitigation measures outlined in 4.7 & 4.8 during this period.
- 4.11 When the IBAA storage area is completed in September 2025, we will install a real time dust monitors to ensure there are no fugitive emissions from the IBAA. These will be installed on top of the bund at mid-point on the Northern bund to provide monitoring of the external boundaries.
- 4.12 The real time monitors are calibrated annually at November and April respectively to ensure dust monitoring is operational throughout the year. The annual calibration will apply to the proposed front field monitor.
- 4.13 If the development has been completed by the end of September 2025 and the dust monitoring and dust suppression equipment has been installed and it is proposed to review the current DEMP by the end of September 2026.

Moisture Probe Monitoring

- 4.14 We have purchased a **RS PRO RS-128M Moisture Meter**. A moisture meter will assist us with the monitoring of IBA and IBAA stockpile moistures, we will carry out 2 x tests per day on the IBA and the IBAA to ensure they remain with their respective moisture contents.
IBA (10 – 16%) & IBAA (14 – 20%)
- 4.15 We will take samples of IBA that has been produced by the 360 excavator ready to be fed into the plant and using the moisture meter, ensure that the moisture is within the optimum range for IBA processing (10-16%).
- 4.16 We will also takes samples of the IBAA which is ready to be blended for export to ensure that it is within the optimum moisture range (14-20%) for exporting and moving.
- 4.17 We will record these results within our internal system and have them available for reporting.

Visual Dust Monitoring

- 4.18 Visual inspections of the following locations will be undertaken by the Site Manager or his nominee during each working day as set out in Table 7.

Table 7: Visual Dust Monitoring

Location	What are you looking for?	Actions
IBA Stockpile area	Do stockpiles look dry and dusty?	Use spray guns, to dampen down.
IBAA Stockpile area	Do stockpiles look dry and dusty?	Use spray guns, to dampen down.
IBA recovery facility	Does the area look dry and dusty?	Use water sprays to dampen down
Haul road into site	Do haul roads look dry and dusty?	Use tractor and bowser to dampen roads down

- 4.19 An online record of the daily inspections including emissions and housekeeping and their findings will be kept using Lauditor. The inspections are part of a site wide inspection scheme as detailed in Appendix 2. The forms will be kept online for senior management or the EA to review at any time.

Emissions and Housekeeping inspections will be in place for the regular inspection and maintenance of storage areas and associated infrastructure, including site surfacing, drainage systems and dust suppression units.

Inspections will pay particular attention to signs of damage, deterioration and leakage. Records will be kept detailing action taken. Any identified faults will be repaired as soon as practicable.

Visual Dust Action Plan

4.20 In the event that any dust or particulates arising from the Site are released outside the Site boundary in such quantities or concentrations that they are likely to cause pollution of the environment or harm to human health, the actions specified below will be implemented:

- The Site manager or his nominee will be informed immediately.
- The source will be identified and damped down.
- In the unlikely event that the source is a particular waste stream, consideration will be given to suspending acceptance of that waste until appropriate measures are in place to control the release of nuisance emissions from the waste; and
- If deemed necessary, the Site Manager will instruct the suspension of any operation causing visible dust emissions until such time as the situation has been resolved.

Light fraction inclusions

4.21 To ensure an event of light fraction inclusions LFI (plastics) arising from the site and being released outside the site boundary with the potential to cause pollution of the environment doesn't occur, the specified actions below have been implemented.

- The operation of the 360 will minimise the movement of material and minimise the drop of material as to not allow LFI's to plume into the air
- There will always be a stockpile of material under the IBAA stocking conveyor to reduce the drop of material and potential of LFI's becoming airborne.
- A road sweeper will keep site hardstanding free of litter.
- All HGV's entering and leaving the site carrying waste will be sheeted.
- Daily inspection of the outside of the perimeter wall including vegetation, ditches and watercourses
- During IBA treatment LFI's are hand-picked in the picking station and transferred via tipping skips to a large static covered skip onsite until it is removed from site.
- Should any LFI's be identified The TCM will be informed, and a litter pick will be deployed.

Following a Complaint

4.22 Following receipt of a complaint regarding dust, all dusty operations may be ceased, and the following actions should be taken:

- The complaint must be investigated fully and the source of the dust identified.
- Following identification of the dust source, suitable remediation measures will be employed as detailed above.
- Once the investigation has been carried out, the Site manager will contact the originator of the complaint and provide feedback on his/ her findings and also the nature of any corrective action taken.
- Once the dust source has been identified and mitigated, if operations were ceased, they may be resumed.
- A record of the complaint together with the remediation actions and a completed Incident Report form will be kept on Site for senior management/ the EA to review at any time; and

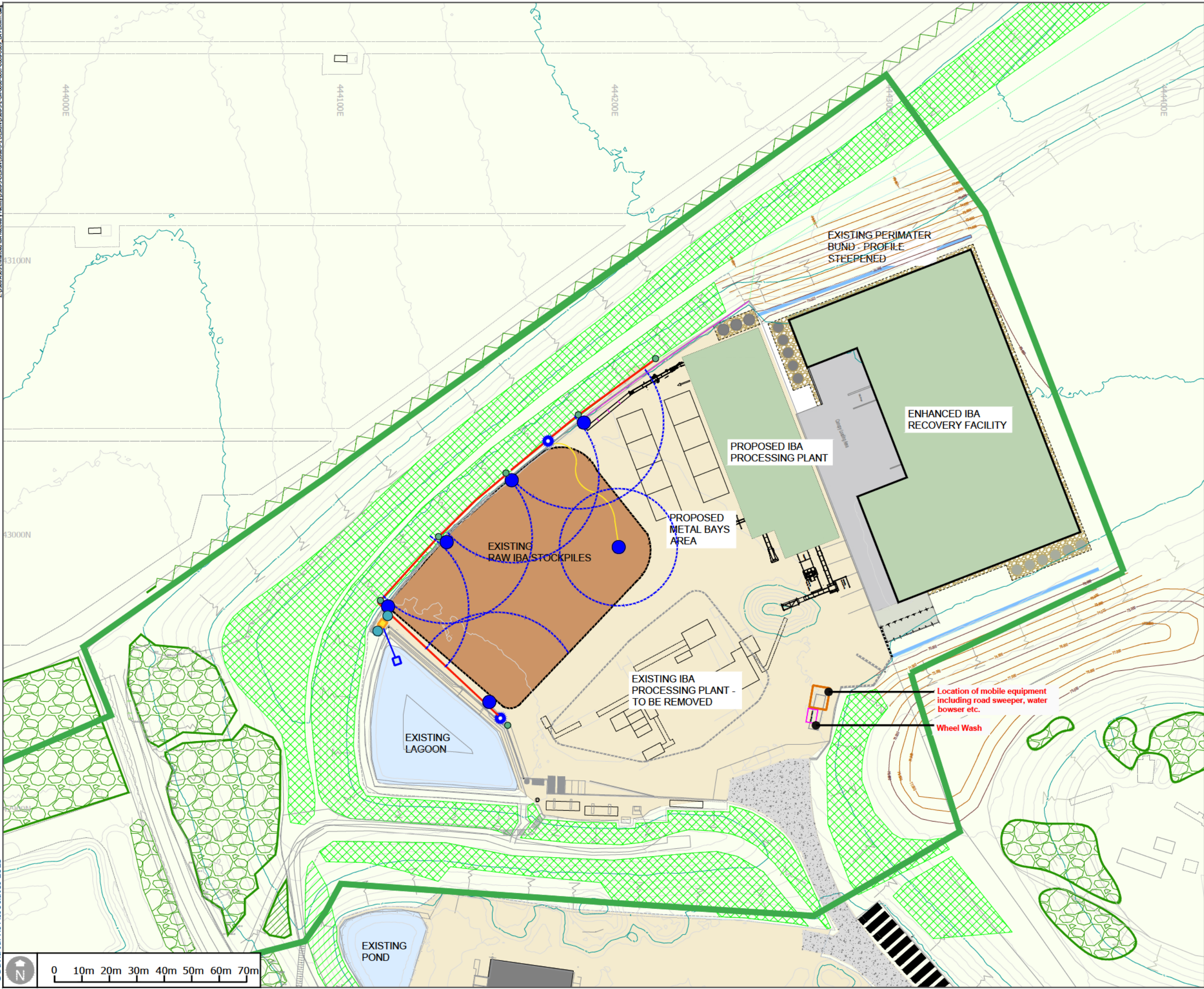
- In the unlikely instance that three or more complaints, be logged for one event, operations will be ceased and the Site manager will escalate the event to senior management.

4.23 Reporting forms for incidents and complaints are presented in Appendix 3 and 4.

APPENDIX 1 RAIN GUN LOCATIONS*

*Rain guns are currently only in the main site until the front field site (IBAA Storage area) has been developed (September 2025) and a full rain gun system will be installed. A new rain gun locations map will be updated once the development has been completed. There is currently only 1 rain gun location on the front field to add moisture to the crest of the IBAA stockpile, and a tractor and bowser is used for the working face.

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KEY

- APPLICATION BOUNDARY
- ENVIRONMENTAL PERMIT BOUNDARY
- EXISTING VEGETATION MATURE
- EXISTING VEGETATION RECENT PLANTATION
- EXISTING HEDGEROWS
- PROPOSED BUILDINGS
- HARD SURFACING TARMAC
- HARD SURFACING PERMEABLE
- WATER TANKS
- SMALLER FEED PIPE
- MAIN LINE PIPE
- FED HOSE TO RAIN GUN TRAILER
- DAMPING SPLAY
- DUST SUPPRESSION CANNON
- SOLENOID VALVE ASSEMBLIES
- HYDRANTS FOR HOSE TAKE OFF
- FLOATING PUMP PONTOON
- PUMP CONTROL CONTAINER
- WATER TANK (2000 LITRES)
- FILTER DRAIN

Notes

related Drawings: DJA Drawing based on BDR: - 25-0064-C10101 SITE PLAN LAYOUT A1.dwg received 11/07/2025

For more information refer to drawing 3388-5-2-0001

Rev.	Date	Description	Drawn	Checked
P1	17/07/2025	PLANNING	JLB	JLB

Status

PLANNING

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Client
RAYMOND BROWN

Project
A 303 ENHANCED IBA FACILITY

Drawing Title
DUST SUPPRESSION INFRASTRUCTURE

Scale 1:1250	Sheet Size A3	Date Plotted 18/07/2025
Client Ref. -	Drawing Ref. 3388-5-2	Drawing No. DR-0008
		Version S5-P1

APPENDIX 2 – DAILY SITE INSPECTION CHECKLIST

General

- 1 Is the site secure (no evidence of trespassing)
- 2 Is access path to site in good condition and lighting operational
- 3 Is the vehicle & pedestrian management plan being complied with
- 4 Have all persons signed in/out of site
- 5 Have contractors and visitors on site been inducted
- 6 Were all persons seen to be wearing appropriate items of PPE
- 7 Are the welfare facilities adequate and clean
- 8 Are stores buildings tidy and floors / walkways clear of trip hazards
- 9 Is site lighting adequate and functioning correctly
- 10 Has the belt weigher been zeroed
- 11 Have all site haul roads been inspected and cleaned

Storage areas

- 12 Is adequate edge protection in place to safeguard wheeled vehicles
- 13 Is there sufficient space in the IBA & IBAA areas?
- 14 Is the site surfacing free of any defects?
Is the rain guns system in full working order?
- 15 Is the LEV extraction system in full working order – bins emptied – suction pressure, OK?
- 16 Are all bay walls in good condition
- 17 Are all product signs in place
- 18 In Winter, is salt available and spread to control ice

Drainage

- 19 Is the lagoon weir free from solid build up
- 20 Does the site drain adequately into the lagoon
- 21 Is the lagoon fence and gates in good condition
- 22 Is lagoon aerator in good working order?
Are emergency life rings and throwing lines present
- 23 Do water storage tanks have adequate capacity and set to lagoon/process/soakaway as appropriate?

Housekeeping

- 24 Are electrical switch rooms clear of unauthorised items
- 25 Are picking stations suitable, lights, heating, cleanliness
- 26 Are walkways and stairs in good order and free of build up
- 27 Is the plant structures and buildings free from any visible damage
- 28 Are products visually acceptable

Mobile Plant

- 29 Is all plant (fixed & mobile) in good visual condition
- 30 Mobile plant windows, lights and mirrors clean and fit for purpose.
- 31 Have plant inspection books been completed either by inspection or reported as stood

Health and Safety

- 32 Are all parts of dangerous machinery adequately guarded
- 33 Are maintenance tasks being undertaken
- 34 Have risk assessments been completed / reviewed
- 35 Has isolation been carried out satisfactorily and checked
- 36 Have persons working been checked for safe working
- 37 Is Fire Fighting Equipment in place and serviceable

Emissions

- 38 Has visual dust monitoring taken place

- 39 Are emission levels acceptable (Dust or Odour)
- 40 Are chemicals and oils stored correctly on bunded pallets where appropriate
- 41 Is there adequate space available in waste containers.
- 42 Are all water tanks in good condition
- 43 Are fuel and Adblue tanks in good condition, no leaks and locked when not in use
- 44 Are Emergency Spill Kits in place and contents checked
Has site operated without any complaints received
- 45 Is wet plant sump empty?

Geotechnical stockpile inspection

- 46 Are stockpiles correctly formed and stockpile plan updated
- 47 Are all stockpiles in compliance to stockpile management plan?
- 48 Are stockpiles dressed correctly and free from overhangs and sheer faces?

APPENDIX 3 – INCIDENT / ACCIDENT REPORT FORM

Issue ID		Date In	
Issue Type		Input By	
Company		Lifecycle	
Title			
Detail			
Passed To		Date Cleared	
Status		Source	
Issue category		Priority	

Date occurred?		Time occurred?	
Location		Operation being carried out:	
Name of Injured Person		Address	
Is the individual under 18?		Occupation	
Employee		If applicable, name and address of employer?	
Were there any witnesses?		If yes:	
Injured person authorised to be in the location?		Was the injured person authorised to do the work?	
Did they stop work?		What was the injury?	
Was the injured person taken to hospital?		If yes, what was the name of the hospital?	
Where on the body of the person was injured?		Please identify the cause:	
Injury Category:		Treatment Given	
Any pre-existing medical condition?		If yes:	
Description of events leading to injury		Immediate Action Taken:	
Corrective Action:		Risk Assessment Reviewed? If yes please attach RA	

APPENDIX 4 – ENVIRONMENTAL COMPLAINT REPORT FORM

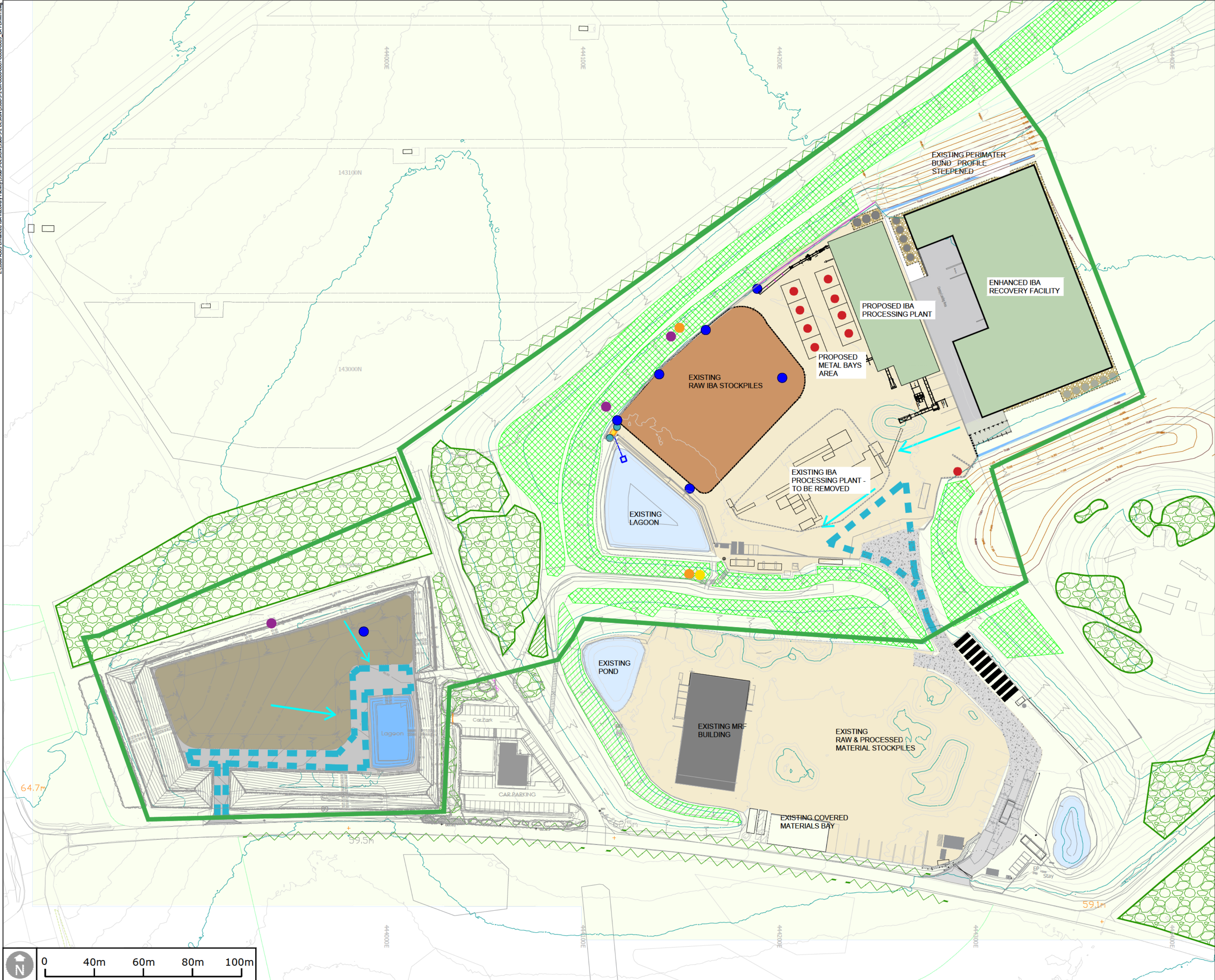
Issue ID		Date In	
Issue Type		Input By	
Company		Lifecycle	
Title			
Detail			
Target Date		Follow Up	
Passed To		Date Cleared	
Progress			
Status		Source	
Issue category		Priority	
Auto closure			

Date occurred?		Time occurred?	
Location		Reported By (Name)	
Site visited?		Date visited	
Investigation findings		Fault	
Is the incident reportable ?		Has the HSQE Manager reported to HSE/EA ?	
What was the immediate action taken?		Root cause	
Corrective Actions:		Any further action required?	
If yes what action?		Learning points (preventable, future actions, whom	
Have you fed back to the person who raised this?			

APPENDIX 5 – SITE PLAN

Z:\3388 A303 Enhanced IBA Recovery Facility\3388-5-2 DESIGN\3388-5-2 DR-0006-0007-0008-0009 EA PERMIT.dwg

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KEY

	APPLICATION BOUNDARY
	ENVIRONMENTAL PERMIT BOUNDARY
	EXISTING VEGETATION MATURE
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	EXISTING HEDGEROWS
	PROPOSED BUILDINGS
	HARD SURFACING TARMAC
	HARD SURFACING PERMEABLE
	WATER TANKS
	METAL STORAGE BAY
	DUST SUPPRESSION CANNON
	REAL TIME DUST MONITORING POINTS
	DIRECTIONAL TIME DUST MONITORING POINTS
	VISUAL MONITORING POINT
	SITE DRAINAGE
	FLOATING PUMP PONTOON
	PUMP CONTROL CONTAINER
	WATER TANK (2000 LITRES)
	FILTER DRAIN

Notes
related Drawings: DIA Drawing based on
BDR: -25-0064-C10101 SITE PLAN LAYOUT A1.dwg received 11/07/2025
For more information refer to drawing 3388-5-2-0001

Rev.	Date	Description	Drawn	Checked
P1	17/07/2025	Planning issue.	JB	JB

Status

PLANNING

DAVID JARVIS ASSOCIATES

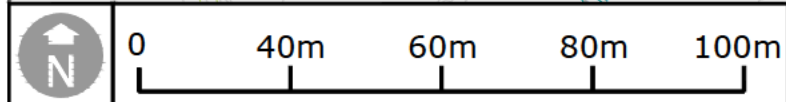
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Project
A 303 ENHANCED IBA FACILITY

Drawing Title
Environmental Permit Boundary and Site Layout Plan

Scale 1:1250	Sheet Size A2	Date Plotted 21/07/2025	
Client Ref. -	Drawing Ref. 3388-5-2	Drawing No. DR-0007	Version S5-P1



APPENDIX 6 – BUILDING & PLANT CONFIGURATION



Notes:

1. DO NOT SCALE FROM THIS DRAWING.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT.
3. THE DEVELOPMENT LAYOUT HAS BEEN TAKEN FROM FORTIS'S DRG. NO. FIBA-A303ME-SK008 REV 4 DATED 09-05-25 & THE SURVEY FROM FORTIS'S TOPOGRAPHICAL LAND SURVEY.

KEY

- CONCRETE SLAB
- ASPHALT
- GRASS
- FFL 70.100 CONCRETE SLAB LEVEL
- PROPOSED GRADIENT
- PROPOSED LEVEL
- EXISTING LEVEL
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- WATER TANKS ON CONCRETE SLAB (INDICATIVE LOCATION)
- HARD SURFACE PATH 1.5m WIDE
- INFILTRATION FILTER DRAIN
- WATER FLOW ROUTE

D	CAR PARK LEVELS UPDATED	SGS	CJM	06.08.25
C	MINOR AMENDMENTS	SGS	CJM	09.07.25
B	ASPHALT & IBA PLANT AREA UPDATED	SGS	CJM	19.06.25
A	FOR PLANNING	SGS	CJM	13.06.25
Rev	Description	Drm	Chk	Date

BdR 
Civil & Structural Engineering Consultants
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Client **FORTIS**
Preserving our Natural Resources

Project
A303 ENHANCED IBA RECOVERY
FACILITY, DRAYTON ROAD
BARTON STACEY, ANDOVER, SO21 3OS

Drawing
SITE PLAN LAYOUT

FOR PLANNING

Scale @ A1 1:500	Date 06.06.25	Drawn by SGS	Checked CJM
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Job No. 25-0064 Drg. No. C10101 Rev D

APPENDIX 7 – RAIN GUN SPECIFICATION

Cod. 10307

Senior

Hose reel machines
Enrolladores

Solid set systems
Cobertura integral

Pivot
Pivot



Double nozzle impact gun for medium flow

Aspersor de impacto y de caudal medio con doble boquilla



Net weight <i>Peso neto</i>	Connection <i>Conexión</i>	Size <i>Dimensiones</i>	Nozzle <i>Boquilla</i>	Angle <i>Ángulo</i>
2,8 kg	2" F	ø 858 mm x 402 mm	Ø 10 + 22 mm	25°

Pressure Presión						for US units go to page 71					
		1,5 bar		2 bar		3 bar		4 bar		5 bar	
Nozzle Boquilla	Flow Caudal l/min	Radius Alcance m	Flow Caudal l/min	Radius Alcance m	Flow Caudal l/min	Radius Alcance m	Flow Caudal l/min	Radius Alcance m	Flow Caudal l/min	Radius Alcance m	
12 mm - 5 mm	130	19	152	22	182	24	211	27	-	-	
14 mm - 5 mm	-	-	195	23	239	28	277	31	309	34	
16 mm - 5 mm	-	-	247	24	303	30	351	34	391	36	
18 mm - 5 mm	-	-	309	24	378	32	436	35	487	38	
20 mm - 5 mm	-	-	376	25	460	33	532	37	594	41	

APPENDIX 8 – OSIRIS UNIT SPECIFICATION



Turnkey Instruments Ltd

Tel: +44 (0)1606 330020 www.turnkey.tel



APM



Osiris Monitor
Sims MC 090157/01

Topas Monitor
Sims MC 090158/01

Airborne Particulate Monitors

- Real time air quality monitoring
- Simultaneous TSP, PM10, PM2.5 & PM1
- Multi-monitor networks
- Spot monitoring, portable or permanent installations
- Meteorological instruments

All instruments feature internal data logging for the particle concentrations. Osiris and Topas also allow wind speed and direction, temperature, humidity, rainfall and two external gas or noise meter inputs to be recorded at the same time.

Turnkey Instruments design and manufacture a range of easy to use instruments which continuously measure and record the concentration of airborne particles. In their environmental mode, these instruments can simultaneously monitor the concentrations of TSP, PM10, PM2.5 and PM1 particles. Alternatively, in their workplace mode, the inhalable, thoracic and respirable fractions can be monitored.

An internal reference filter can be used to confirm the gravimetric calibration of the instruments.

All instruments use our own proprietary nephelometer. A pump continuously draws an air sample through the nephelometer, which analyses the individual particles as they pass through a laser beam. These same particles are then collected on the reference filter. The nephelometer's dedicated microprocessor can analyse individual particles even if there are millions of them per litre. This allows size fractions to be determined at concentrations up to several mg/m³. Above this there is an indicator range which can be used without sizing up to 60 mg/m³.

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Feature	Description	TOPAS	OSIRIS	DUSTMATE
Standard inlet	TSP (1mm stainless mesh)	✓	✓	✓
Heated inlet	Heating to 60°C	✓	✓	•
Detector	Turnkey laser nephelometer	✓	✓	✓
Environmental mode	TSP, PM10, PM2.5, PM1.0	✓	✓	✓
Workplace mode	Inhalable, thoracic, respirable	✓	✓	✓
Measurement range	0 to 6000 micrograms per cubic metre	✓	✓	✓
Detection limit	0.01 micrograms per cubic metre	✓	✓	✓
Indicator range	0 to 60mg/m ³ without particle sizing	✓	✓	✓
Particle size range	0.5 to 20 micron diameter	✓	✓	✓
Particle counting mode	Three size channels in particle per cc	✓	✓	✓
Flow rate	600cc per minute	✓	✓	✓
Reference filter	25mm diameter GFA circle	✓	✓	✓
Operating temperature	-5°C to +50°C	✓	✓	✓
Security	Password protection	✓	✓	✓
Alarm	Siren, text to cellular phone, visual beacon and email	✓	✓	✗
Display	Two line alphanumeric with backlight	✓	✓	✓
Data storage	Internal with separate battery backup	128k byte	128k byte	32k byte
Averaging period	1 second to 4 hours	✓	✓	✓
Battery	Sealed lead acid, rechargeable	n/a	Internal 6v 2.8 AH	Belt pack 6v 1.2 AH
Sampling current drain	Including heated inlet and backlight	1.2A	1.2A	200mA (without heated inlet)
External power pack	80 to 260v AC input, weatherproof	•	•	✗
Meteorological inputs	Wind speed and direction, rainfall, temperature and humidity	✓	✓	✗
Other logging inputs	Two 0 to 5 volt analogue inputs	✓	✓	✗
RS232 I/O	9600 baud via PC-link	✓	✓	✓
Telemetry I/O	1200 baud opto isolated	✓	✓	✗
Analogue output	0 to 4 volt analogue of TSP or PM10 channel, 12 bit resolution	•	•	✗
Wall or lamp post box	Lockable steel	✓	✓	✗
Case protection	To IP66 (excluding inlet and exhaust)	✓	✓	Carry case
Dimensions	External dimensions in mm	400 x 300	260 x 160 x 150	160 x 100 x 100
Weight	Instrument and enclosure approximate weight in kg	12kg	11.8kg	1.2kg
Power options	Solar, wind, mains and battery	✓	✓	Mains and battery only

✓ Fitted as standard ✗ Not available • Available as option

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APPENDIX 9- P05 EMISSIONS CONTROL PROCEDURE V3

EP5 Emissions Control Procedure

Version No.	Version date	Description
Original (v1)	July 2024	New emissions control procedure
v2	February 2025	Addition on Moisture recording procedure
v3	August 2025	Update to reflect Replant and Enhanced IBAA processing

1. Approach

- 1.1 Fortis and the A303 site have a legal and moral responsibility to ensure that our activities do not adversely impact the environment or our neighbours. As part of this responsibility we have specific obligations with respect to ANY emissions that leave the site. For the purposes of this procedure, this specifically includes emissions to water, air or land and odour.
- 1.2 Activities at the A303 site are controlled by the Environmental Protection Act 1990 (EPA) by means of a permit (EPR permit) issued by the Environment Agency. The EPR permit describes the application of the legislation in respect of the requirements that the site must adhere to when receiving, storing processing and shipping of non-hazardous wastes on site. This for example covers what kind of non-hazardous waste the site is allowed to receive, the quantity of material that the site is allowed to accept and process, how it must be transported to site and what hours during the day the site may receive the waste and importantly defines conditions and requirements on the site's operating practices and controls such as emissions management.
- 1.3 The site's application of the requirements of the EPR permit and best practice are outlined in the Fortis IBA A303 Emissions Management Plan.
- 1.4 The scope of the EPR permit and the Fortis IBA A303 Emissions Management Plan impact all operational areas and staff across the site.
- 1.5 This procedure works in conjunction with other Safe working procedures (e.g. P07 Excavator Operating Rules, P09 Stockpile management Procedure and P12 Preparation of IBAA stockpiles for Compliant Dispatch) and outlines the key aspects required by the Fortis IBA A303 Emissions Management Plan and is applicable to all staff on site. Specifically this procedure is concerned with the management of emissions and odour resulting from site activities.

2. Responsibilities

- 2.1 TCM – Has overall responsibility that the site operations are compliant with the conditions and stipulations contained within the EPR permit and the Fortis IBA A303 Emissions Management Plan and that adequate resources, equipment and training are provided to ensure activities are performed in accordance with these conditions. The TCM is also responsible for ensuring that all control, monitoring, reporting and management systems are adhered to.
- 2.2 All site staff – Have the responsibility to understand and work in accordance with the requirements of procedures that are in place (including this procedure) that support the EPR permit and the Fortis IBA A303 Emissions Management Plan.

Crucially, it is the responsibility of ALL site personnel to monitor their own activities and those of other site personnel and contractors and immediately report any activities that could represent a non-conformance. ALL site staff are required and encouraged to immediately cease and report any activity that could represent a potential or actual breach of the EPR permit and the Fortis IBA A303 Emissions Management Plan.

- 2.3 Technical & Environmental Department – Are responsible for monitoring, review of data and complaints to provide analysis, feedback and information to assist in the review and continual improvement of site performance.

3. Requirements and Risks

- 3.1 In respect of emission management, the list below sets out the main requirements of the EPR permit and the Fortis IBA A303 Emissions Management Plan .
- There shall be no point source emissions to water, air or land.
 - Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.
 - The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
 - All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
 - Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used

appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

- The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2 The table below represents potential sensitive receptors that could potentially be impacted by uncontrolled emissions from the site:

ID	Receptor	Description	Direction from Permit Application Boundary	Distance from Permit Application Boundary (m)	Location in Relation to Prevailing Wind Direction
1	Drayton Manor Homes	Residential	South West	350	Downwind
2	Owls Lodge Farm (Residential building)	Residential	North	900	Upwind
3	Collard Group	Commercial	South	40	Downwind
4	Owls Lodge Solar Farm	Commercial	North	42	Upwind
5	Owl Lodge Shooting school	Commercial	East	50	Upwind
6	Starbucks	Commercial	South West	295	Downwind
7	Travelodge	Commercial	South West	314	Downwind
8	Esso petrol station	Commercial	South West	326	Downwind
9	Andover car repairs	Commercial	South West	350	Downwind

3.3 The list below contains identified sources of fugitive dust for which controls and mitigation measures must be provided:

- Vehicles entering and/or leaving the Site with mud on wheels, and tracking dust on to or off the Site;
- Vehicles and plant moving around the site kicking up dust
- Road vehicles tipping waste;
- Loading waste materials (IBAA / Metals) on to vehicles.

- Wind whipping from stockpiled waste;
- Breaking out of windrow stockpiles to transfer matured materials for physical treatment;
- Blending damp material with drier material from the core of the stockpile, prior to treatment;
- Physical treatment of waste, including wastes dropping from conveyors into stockpiles; and
- Particulate emissions from the exhaust of vehicles/plant/generators/machinery on Site.

4. Method

4.1 The table below identifies the aspects and activities on site that present potential risks of fugitive emissions and outlines the control measures and operating procedures that are designed to mitigate and control these risks with which all staff members are required to comply:

A303 Site Procedure

Airbourne Dust		
Activity/Aspect	Potential impact	Control measure / operating procedure
Vehicles entering and/or leaving the Site.	Tracking dust on wheels and vehicles, then mud dropping off vehicles when dry. Debris falling from lorries.	Where weather conditions require, Loading shovel operators to ensure that the site surfacing / haul roads are adequately doused using the tractor and bowser. The wheel wash is to be operational at all times ensuring vehicles. TCM to ensure that the site road sweeper is deployed twice weekly (or as required.) Weighbridge operator to ensure all vehicles are sheeted before leaving site.
Road vehicles moving on site and tipping Materials. Internal movements of mobile plant.	Dust as airborne particulates being blown offsite.	Where weather conditions require, Loading shovel operators to ensure that the site area is adequately doused using the tractor and bowser. All operators should monitor prevailing weather conditions using the site wind sock and their own observations to evaluate and be aware of wind direction and strength. Where possible tipping activities should be undertaken having considered wind strength and direction.
Tipping of incoming material and formation of IBA windrows	Dust as airborne particulates being blown offsite.	All operators should monitor prevailing weather conditions using the site wind sock and their own observations to evaluate and be aware of wind direction and strength. Where possible tipping activities should be undertaken having considered wind strength and direction. Activities causing any concerns or observations of airborne dust which could potentially leave the site MUST cease immediately and assistance from TCM be sought.

A303 Site Procedure

		The 360 operator must ensure incoming material remains at expected moisture level. Any changes overly wet or dry material observed being delivered to site should be stopped from tipping where possible and reported to site management immediately. In terms of forming the IBA stockpiles: • Work from the ground level where possible or a platform height of approx. 4meters or from the top of the stockpile. Keep the platform height throughout the windrow. Decisions regarding the positioning of the vehicle should be made to minimise the distance of movement of material and minimize the risk of airborne dust generation. • Do not overreach • Put 'damper' material on top of dry material before moving it. • Keep to level buckets and not overfilling them with dry powdery material. • Keep machine movements as smooth as possible. • Minimise the amount of drop height when emptying the bucket. • Where possible 'fold' the materials together rather than picking it up and dropping it. When tipping Non Ferrous metal deliveries inside the enhanced IBA processing raw material receipt/storage hall, the operators must ensure that the dust extraction system above the storage bays is working with sufficient air flow and the filter differential pressures are acceptable to ensure adequate extraction – and that there are no emissions from the filter exhaust. The filters will be changed when the differential pressure exceeds target value. Emission Point (EP1) will be checked annually to ensure emission levels are 2-5mg/Nm³ The filtration system is designed in order to ensure the channelled dust emissions to air are between 2-5mg/Nm³
Wind whipping from stockpiled IBA, IBAA (including blended material.)	Dust as airborne particulates being blown offsite.	360 operator is responsible for monitoring the condition of existing IBA and IBAA windrows and ensuring the fixed and mobile water cannons or spray from the bowser are used to ensure that stockpiles remain thatched and do not represent a risk of becoming a source of airborne dust.

A303 Site Procedure

Breaking out and preparation of materials for processing, including riddling.	Dust as airborne particulates being blown offsite.	All operators should monitor prevailing weather conditions using the site wind sock and their own observations to evaluate and be aware of wind direction and strength. Where possible tipping activities should be undertaken having considered wind strength and direction. Activities causing any concerns or observations of airborne dust which could potentially leave the site MUST cease immediately and assistance from the TCM be sought. • Work from the ground level where possible or a platform height of approximately 4 meters or from the top of the stockpile. Keep the platform height throughout the windrow. Decisions regarding the positioning of the vehicle should be made to minimise the distance of movement of material and minimize the risk of airborne dust generation. • Put 'damper' material on top of dry material before moving it. When it is necessary to move dry material from height, always ensure that the material is suitably moistened before moving to blend with dry material at a lower level. • Work in a hole or containment area with 3 sides for blending/mixing of dry and wet material to minimize dust. The 360 operator must consider whether water should be added to reduce the risk of fugitive dust emissions. Utilise 'ponds' and deploy dust suppression water to ensure dry material is suitably moistened before attempting movement. • Always think ahead. If working on exceptionally dry product, then ensure that there is sufficient water running into your working area over the top of the windrow and waterfalling down your face that you have created. • Do not pull down from a sheer face • The removal of larger metal and non-metal items (riddling) from the material must be undertaken at ground level with suitably prepared material (i.e. dry material should not be riddled.) and in a location that is protected from the prevailing wind. During riddling, all movements should be kept to a minimum to minimise the risk of generating airborne dust. • Keep to level buckets and not overfilling them with dry powdery material. • Keep machine movements as smooth as possible. • Minimize the amount of drop height when emptying the bucket.
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A303 Site Procedure

		• Try to where possible 'fold' the materials together rather than picking it up and dropping it. • Do not overreach keep the work area from blending hole to feed material a sensible reach. • Do not condition too much material, keep a sensible amount of feed especially in wet or hot conditions.
Blending of IBAA and Loading of vehicles with IBAA	Dust as airborne particulates being blown offsite.	Prior to loading: • Ensure the material is in the optimum moisture range for loading (between 14 – 20%) • The loading shovel driver should be aware of planned collections for the day via the morning brief or communication with the weighbridge operator • Using this plan the loading shovel operator should ensure sufficient material from the IBAA stockpile or blended material stockpiles is moistened using the spay guns or the bowser as appropriate such that as vehicles arrive, material is suitable for loading. Whilst blending and loading: • Consider the positioning of the vehicle to minimise the risk of dust. • Keep to level buckets and not overfilling them with dry powdery material. • Keep machine movements as smooth as possible. • Minimise the amount of drop height when emptying the bucket.
Loading of vehicles with extracted metals	Dust as airborne particulates being blown offsite.	Metal rich products loaded from the Enhanced IBA processing facility metals loading bays, storage stillages or from bags, should be loaded onto vehicles following the following key points: Prior to loading: • The loading driver should be aware of planned metal collections for the week and the day having consulted the metal collections plan. • Using this plan the loading shovel operator should ensure that the metal to be collected is moistened if appropriate depending on the nature / type of the product, using the spray guns or the bowser prior to loading of vehicles. Whilst loading: • Consider the positioning of the vehicle to minimise the risk of dust. • Keep to level buckets and not overfilling them with dry powdery material.

A303 Site Procedure

		• Keep machine movements as smooth as possible. • Minimise the amount of drop height when emptying the bucket.
Loading of plant hoppers	Dust as airborne particulates being blown offsite.	The loading shovel operator must take due care to: • To ensure when loading IBA it is in the optimum moisture range for processing (between 10 – 16%) • Control the quantity of material carried to the hopper (excessive quantities could increase the risk of airborne particles becoming an issue.) • Ensure site speed limits are adhered to at all times to avoid the generation of dust. • Ensure that material is loaded to the hopper carefully at the lowest drop height possible to avoid dust escaping the dust hood. • Prior to loading the wet plant metal feed material to the hopper (> 12mm), ensure the material is sufficiently moist to minimise dust emissions. • Communicate with the site supervisor and 360 operator to maintain optimum moisture content of IBA material being loaded to the plant. All operators have a responsibility for managing the moisture content of material.
Conveyance of material on external conveyors.	Dust as airborne particulates being blown offsite.	The site supervisor and maintenance engineer are responsible for ensuring the integrity of all external conveyor covers.
Process plant operation	Dust as airborne particulates building up in the factory representing a H&S hazard or escaping the building and being blown offsite.	• The process plant is designed to minimise the risk of airborne dust. That said the following are key points to ensure that in circumstances where conditions arise such that airborne dust becomes an issue, then this is managed: • The site supervisor, plant operators and maintenance engineer should ensure that all covers and guarding is maintained in good order at key 'drop points' • For IBA processing, in the event that material being processed becomes too dry, then the site supervisor should liaise with the 360 operator and loading shovel driver to restore the optimum moisture content by taking another reading of the IBA using the moisture probe to check it is within the range of 10 – 16%. • If necessary to control the environment within the factory and to eliminate the risk of airborne dust escaping the factory, the site supervisor should stop or reduce the plant feed

A303 Site Procedure

		rate until conditions are returned to normal. - When operating the enhanced IBA recovery facility dry plant, ensure that the process LEV extraction system is working with sufficient air flow and the bag filter differential pressures are acceptable to ensure adequate extraction – and that there are no emissions from the filter exhaust. The filters will be changed when the differential pressure exceeds target value. - Emission Point (EP2) will be checked annually to ensure emission levels are 2-5mg/Nm³. The filtration system is designed in order to ensure the channelled dust emissions to air are between 2-5mg/Nm³
Stockpiling of IBAA material	Dust as airborne particulates being blown offsite.	The IBAA loading shovel operator and the site supervisor are responsible for monitoring the IBAA stockpile and output conveyor C16. The following key points should be maintained and any potential issues reported to site management immediately: Management of the plant output stockpile: - The integrity of the conveyor covers and hood must be maintained. - The integrity and operation of the water halo must be managed and maintained - The height of the stockpile must be managed at all times to minimise drop height. - Where necessary and particularly when moving material from the stockpile, the 360 operator must consider whether water should be added to reduce the risk of fugitive dust emissions. Deploy dust suppression water cannons to add water if required Management of IBAA bulk stockpile In addition to the above measures, the following key points must be observed: Do not pull down from a sheer face. - Work from the ground level where possible or a platform height of approx. 4meters or from the top of the stockpile. Decisions regarding the positioning of the vehicle should be

A303 Site Procedure

		made to minimise the distance of movement of material and minimize the risk of airborne dust generation. • Put 'damper' material on top of dry material before moving it. • Keep to level buckets and not overfilling them with dry powdery material. • Keep machine movements as smooth as possible. • Minimise the amount of drop height when emptying the bucket. • Where possible 'fold' the materials together rather than picking it up and dropping it.
Generators and Vehicle exhaust emissions	Airborne particulates	Site management and senior management are responsible for selecting and providing equipment compliant with current legislation / best practice All operators are responsible for ensuring that vehicles are operated with fuel efficiency and therefore emission in mind. i.e. all operators should be mindful of site speed limits, careful power management and avoidance of unnecessary idling of plant.
Odour		
Odour is managed in accordance with the above emissions mitigation measures.		
Process water and other fluids utilised on site		
Process water	Contamination of water courses beyond the site boundary.	The site containment walls act as the principal barrier to control water management onsite. All operators must be mindful of wind direction and strength when utilising fixed water cannons, positioning mobile water cannons, and utilising the spray facility of the bowser to avoid airborne water particles being blown offsite.
Other process fluids	Contamination of internal and (by transfer) external water courses beyond the site boundary.	All other process fluids must be stored on the provided bunds including flocculant IBCs's used in the wet process and the bunds checked and kept empty. The water tanks and pumps for containing rainwater arising from building roofs must be checked using the site daily checklist to ensure in good condition and operating set up is as required.

A303 Site Procedure

		The tank levels should be checked on a daily basis to ensure arising water is being managed and in the infrequent event of flooding that the excess water reports to the infiltration tanks.
--	--	--

4.2 Additional controls include:

- Good Housekeeping
- Site speed limits
- Prompt action to cleaning up spillages
- Windows and doors to be kept shut on all vehicles

4.3 Internal non-conformances / concerns should be reported to management immediately, these alongside external complaints will be recorded on EQMS and investigated in order to establish root cause. From these findings it is our aim to prevent / reduce the risk of recurrence.

Where an activity has been ceased due to a potential or actual issue, the TCM has responsibility for ensuring that appropriate remedial or mitigation measures have been established before the activity is resumed.

In the event of internal and external Internal non-conformances / concerns, corrective and preventative actions should be considered as part of the investigation process. Investigation may include a review of activities being performed, review of monitoring data (DustScan, Osiris and In house monitoring where applicable), and it shall be confirmed whether the required dust and odour control measures were implemented. If issues/complaints are found to be reoccurring, further investigation may be required and the effectiveness of existing controls considered in order to prevent reoccurrence.

4.4 Potential improvements to dust *and odour* control on site are added to the site improvement plan.

5. Appropriate PPE to be Worn

5.1 When on site, the following must be worn:



5.2 Within the process plant, full face mechanically powered RPE or suitable face fit RPE is a mandatory requirement.

6. Related Documents

- 6.1 Planning Permission.
- 6.2 Environmental Permit.
- 6.3 Fortis IBA A303 EMP

[illegible]

APPENDIX 10- DETAILS OF RS PRO RS-128M MOISTURE METER

Moisture Meter



FEATURES

- CM% measure function
- Measure and HOLD Function
- Pinless measurement
- Automatic calibration
- High frequency sensing technology

RS PRO RS-128M Moisture Meter, Maximum Measurement 100%

RS Stock No.: 146-9082



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Moisture Meter



Product Description

Introducing the RS PRO Multifunctional Moisture Meter, a highly reliable device used to quickly and effectively measure moisture content in a range of materials, including wood, plaster and concrete. The RS PRO moisture meter features Pinless technology, allowing an accurate moisture measurement to be carried out without damaging the surface of the material, making it an easy to use, non-invasive tool to measure moisture content.

General Specifications

Model Number	RS-128M
Type of Meter	Pin less
Measuring Principle	Material moisture
Display Type	Digital
Resolution	0.1%
Penetration Length	20mm to 40mm
Auto Power OFF	Yes
Hold Function	Yes
Applications	Wood / concrete / plaster / hay / Screed

Electrical Specifications

Power Source	Battery
Battery Included	Yes
Battery Type	AAA

Mechanical Specifications

Housing Material	Plastic
Dimensions	63mm x 30mm x 242mm
Width	63mm
Length	30mm
Height	242mm
Weight	226g

Moisture Meter

Approvals

Compliance/Certifications

EN61340



Moisture Table of Comparison

Construction Material	Display(Units)	Moisture Status
Gypsum	< 30	Dry
	30 ~ 60	Risk
	> 60	Wet
Cement	< 25	Dry
	25 ~ 50	Risk
	> 50	Wet
Wood	< 50	Dry
	50 ~ 80	Risk
	> 80	Wet

Specification

Measuring Range	0.0 ~ 100.0
Penetration Depth	20 ~ 40mm
Resolution	0.1
Battery	Three"AAA" Batteries

APPENDIX 11- TABLE FOR RECORDING IBA & IBAA MOISTURES

Moisture Probe AM	Feed %	Lower Limit	Upper Limit	Feed %	Moisture Probe PM
01/02/2025		10	16		01/02/2025
02/02/2025		10	16		02/02/2025
03/02/2025		10	16		03/02/2025
04/02/2025		10	16		04/02/2025
05/02/2025		10	16		05/02/2025
06/02/2025		10	16		06/02/2025
07/02/2025		10	16		07/02/2025
08/02/2025		10	16		08/02/2025
09/02/2025		10	16		09/02/2025
10/02/2025		10	16		10/02/2025
11/02/2025		10	16		11/02/2025
12/02/2025		10	16		12/02/2025
13/02/2025		10	16		13/02/2025
14/02/2025		10	16		14/02/2025
15/02/2025		10	16		15/02/2025
16/02/2025		10	16		16/02/2025
17/02/2025		10	16		17/02/2025
18/02/2025		10	16		18/02/2025
19/02/2025		10	16		19/02/2025
20/02/2025		10	16		20/02/2025
21/02/2025		10	16		21/02/2025
22/02/2025		10	16		22/02/2025
23/02/2025		10	16		23/02/2025
24/02/2025		10	16		24/02/2025
25/02/2025		10	16		25/02/2025
26/02/2025		10	16		26/02/2025
27/02/2025		10	16		27/02/2025
28/02/2025		10	16		28/02/2025

Moisture Probe AM	IBAA %	Lower Limit	Upper Limit	IBAA	Moisture Probe PM
01/02/2025		14	20		01/02/2025
02/02/2025		14	20		02/02/2025
03/02/2025		14	20		03/02/2025
04/02/2025		14	20		04/02/2025
05/02/2025		14	20		05/02/2025
06/02/2025		14	20		06/02/2025
07/02/2025		14	20		07/02/2025
08/02/2025		14	20		08/02/2025
09/02/2025		14	20		09/02/2025
10/02/2025		14	20		10/02/2025
11/02/2025		14	20		11/02/2025
12/02/2025		14	20		12/02/2025
13/02/2025		14	20		13/02/2025
14/02/2025		14	20		14/02/2025
15/02/2025		14	20		15/02/2025
16/02/2025		14	20		16/02/2025
17/02/2025		14	20		17/02/2025
18/02/2025		14	20		18/02/2025
19/02/2025		14	20		19/02/2025
20/02/2025		14	20		20/02/2025
21/02/2025		14	20		21/02/2025
22/02/2025		14	20		22/02/2025
23/02/2025		14	20		23/02/2025
24/02/2025		14	20		24/02/2025
25/02/2025		14	20		25/02/2025
26/02/2025		14	20		26/02/2025
27/02/2025		14	20		27/02/2025
28/02/2025		14	20		28/02/2025

APPENDIX 13

Noise Impact Assessment



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**PROPOSED VARIATION TO ENVIRONMENTAL PERMIT,
FORTIS IBA PLANT, DRAYTON ROAD, BARTON STACEY, HAMPSHIRE
NOISE IMPACT ASSESSMENT**

Technical Report: R10890-2 Rev 0

Date: 22nd July 2025

For: Fortis IBA Ltd
2nd Floor
Fryern House
125 Winchester Road
Chandler's Ford
Hampshire
SO53 2DR

24 Acoustics Document Control Sheet

Project Title: Proposed Variation to Environmental Permit
Fortis IBA, Drayton Road, Barton Stacey
Noise Impact Assessment

Report Ref: R10980-1 Rev 3

Date: 22nd July 2025

	Name	Position	Signature	Date
Prepared by	Reuben Peckham BEng MPhil CEng MIOA	Principal Consultant		22/07/2025
Reviewed by	Stephen Gosling BEng MIOA	Principal Consultant		22/07/2025
Approved by	Stephen Gosling BEng MIOA	Principal Consultant		22/07/2025
For and on behalf of 24 Acoustics Ltd				

Document Status and Approval Schedule

Revision	Description	Prepared By	Reviewed By	Approved By
0	Approved for issue	Reuben Peckham	Stephen Gosling	Stephen Gosling

DISCLAIMER

This report was completed by 24 Acoustics Ltd on the basis of a defined programme of work and terms and conditions agreed with the Client. The report has been prepared with all reasonable skill, care and diligence within the terms of the Contract with the Client and taking into account the project objectives, the agreed scope of works, prevailing site conditions and the degree of manpower and resources allocated to the project.

24 Acoustics Ltd accepts no responsibility whatsoever, following the issue of the report, for any matters arising outside the agreed scope of the works.

This report is issued in confidence to the Client and 24 Acoustics Ltd has no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies upon the report at their own risk.

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EXECUTIVE SUMMARY

Fortis IBA Ltd (Fortis) is seeking planning consent to replace and extend the existing Incinerator Bottom Ash (IBA) plant at the A303 Enviropark. 24 Acoustics Ltd has been retained by Fortis to undertake an assessment of the potential noise impact of the proposal in support of the planning application for the changes and also in support of the application to vary the site's Environmental Permit.

The proposals include the deconstruction and removal of the existing IBA processing plant and the construction of an upgraded, replacement plant (replant); as well as a new, enhanced IBA recovery facility located within the extension area.

The assessment has been performed following extensive background noise surveys at the nearest residential receptors to the site and detailed acoustic modelling of the noise emissions from the proposals.

The assessment has indicated that the proposals will result in a low noise impact at Owls Lodge which may be audible from time to time (eg between significant lulls in traffic movements) but with no adverse effect. The noise impact at the housing and hotel at Drayton Park will be negligible at all times.

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1.0 INTRODUCTION

- 1.1 Fortis IBA Ltd (Fortis) is seeking planning consent to replace and extend the existing Incinerator Bottom Ash (IBA) plant at the A303 Enviropark. 24 Acoustics Ltd has been retained by Fortis to undertake an assessment of the potential noise impact of the proposal in support of the planning application for the changes and also in support of the application to vary the site's Environmental Permit.
- 1.2 This report presents the results of the assessment, following background noise surveys undertaken on the site in March 2025 and detailed acoustical modelling of the noise from the operation of the proposed new plant.
- 1.3 All noise levels presented in this report are in decibels (dB) relative to 20 μ Pa. A glossary of the acoustic terminology used is provided in Appendix A.

2.0 SITE DESCRIPTION AND PROPOSED OPERATION

- 2.1 The A303 Enviropark site is located in a rural area between Barton Stacey and Longparish and approximately 2 km west of the A303/ A34 intersection.
- 2.2 Owls Lodge Solar Farm neighbours the site to the north and Owls Lodge Shooting School to the south.
- 2.3 The proposals include the deconstruction and removal of the existing IBA processing plant and the construction of an upgraded, replacement plant (replant); as well as a new, enhanced IBA recovery facility. The replant will be housed and relocated on the existing IBA site; whilst the enhanced IBA Recovery facility will be sited within a separate, new building in the adjacent extension area.
- 2.4 The replant is a replacement and upgrade to the existing IBA processing plant and will process the imported IBA to produce IBA Aggregate (IBAA) and screened metals. The replant process operation is similar to the existing plant; however, technological advances have been integrated to improve energy efficiency and metals recovery which in turn will improve the quality of the IBAA. The enhanced IBA recovery facility will further refine the non-ferrous fraction produced from the replant ; as well as imported non-ferrous metals from the other Fortis sites.. The various processes are described below:
 - Importation of IBA material/ transfer via loading shovel from the IBA replant building;
 - Screening of the imported material;

- Materials with dimensions between 0 and 12 mm will be processed through a dry separation plant, crushed (milled) and metals removed and then screened into various sizes and directed to 'air tables' to further split materials according to density;
- Materials with dimensions in excess of 12 mm will be processed through an operational water treatment process comprising a wet separation plant, washed in a trommel and water removed via a de-watering screening. The material will then be passed through a wet density separation drum to further split the metal types by density.
- Recovered IBA residue will be returned to the adjacent IBA recycling plant for use as IBA aggregate and the recovered metals from the wet and dry separation plants will be stored appropriately within the building prior to export.

2.5 The plant will operate within the same hours as currently consented, as follows:

- HGV movements only between the hours: 07:00- 20:00 Monday to Friday and 07:00- 14:00 Saturday;
- IBA plant or machinery operated between the following hours: 06:00- 20:00 Monday to Friday and 06:00- 14:00 Saturday with no operations on Sundays or public holidays.

2.6 The site is situated in a relatively remote rural area surrounded by large areas of MOD land and shooting areas. The closest relevant residential properties to the application site are the mobile homes at Drayton Park which are located a minimum of 600 m south-west of the proposed plant location. Owls Lodge Farm is the next closest receptor and is located approximately 1000 m to the north north-west. Barton Stacey Travelodge is located around 725 m to the south-west.

2.7 The existing Environmental Permit (Reference EPR/FB3805GN) was last varied in 2016 and is subject to conditions. Section 3.4 relates to noise, as follows:

3.4.1

Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.8 Figure 1 provides an aerial image of the site and surrounding area, showing the location of the nearest noise-sensitive receptors. Figure 2 shows the proposed site.

3.0 NOISE IMPACT ASSESSMENT CRITERIA

3.1 BS 4142:2014+A1:2019 [Reference 1] provides a method for rating the effects of industrial and commercial noise/ sound on residential areas. The standard advocates a comparison between the typical measured L_{A90} background noise level and L_{Aeq} noise level from the source being considered. For rating purposes if the noise source is tonal, intermittent or otherwise distinctive in character, a rating correction is applied.

3.2 The standard states that a difference between the rating level and the background level of around +10 dB is an indication of a significant adverse impact, depending on the context and a difference of around +5 dB is likely to be an indication of an adverse impact again depending on the context. Where the rating level does not exceed the background noise level, this is an indication of the specific sound source having a low impact (depending upon the context).

4.0 APPROACH TO THE ASSESSMENT

4.1 The following assessment methodology has been used:

- i. A background noise survey has been undertaken to determine existing levels of background noise at the nearest residential properties to the site.
- ii. An acoustic model of the operation has been developed based upon source-term data for the plant provided by manufacturers and vendors. This calculates the noise level from the operations at receptor locations taking into account geometric divergence, screening and ground and atmospheric attenuation.
- iii. An assessment of the likely noise impact associated with the proposals has been undertaken, based upon the technical guidance advocated within BS 4142.

5.0 BACKGROUND NOISE SURVEYS

- 5.1 Background noise measurements were undertaken on site to determine the noise level at the nearest residential properties to proposed new working areas. Noise monitoring equipment was installed at a height of 1.5 m at the closest accessible area to Owls Lodge Farm and at Drayton Park as shown in Figure 1.
- 5.2 These locations are considered representative of the background noise environment for the nearest residential properties to the site. Measurements were undertaken in samples of 15 minutes in terms of the overall free-field A-weighted L_{eq} , L_{90} and $L_{max,f}$ noise levels. Measurements were undertaken between 18th and 25th March 2025.
- 5.3 The noise measurements were undertaken with the following instrumentation:
- 2* Rion NL32 Class 1 accuracy sound level meter;
 - Bruel and Kjaer Type 4231 Class 1 accuracy acoustic calibrator.
- 5.4 The instrumentation was calibrated before and after the surveys in accordance with the manufacturer's instructions. No significant drift in calibration was recorded. Calibration certificates of the instrumentation used are provided in Appendix B. The instrument microphones were fitted with environmental weather shields during the measurements.
- 5.5 Weather conditions during the survey were recorded using a Davis Instruments Vantage meteorological station. Weather conditions during the surveys were generally fine and dry with wind speeds typically lower than 5 m/s.
- 5.6 The results of the background noise and weather surveys are shown graphically in Appendix B. As the existing IBA site was operational during the surveys the background noise levels have been determined during the shoulder periods before and after the site operations and during the lunchtime shut down.

Day and Date	Time of Day and Noise Level, dB LA90, 15 min		
	05:45	12:00- 13:00	20:00
Tuesday 18 March	-	63	62
Wednesday 19 March	63	61	57
Thursday 20 March	61	62	63
Friday 21 March	61	66	63
Typical Weekday	62	63	60
Saturday 22 March	58	66	61
Typical Saturday	58	66	61

Table 2: Summary of Background Noise Survey Results, Drayton Park

Day and Date	Time of Day and Noise Level, dB LA90, 15 min		
	05:45	12:00- 13:00	20:00
Tuesday 18 March	-	38	38
Wednesday 19 March	48	35	38
Thursday 20 March	47	39	43
Friday 21 March	45	43	43
Monday 24 March	38	34	42
Tuesday 25 March	41	-	-
Typical Weekday	41	38	39
Saturday 22 March	43	41	38
Typical Saturday	43	41	39

Table 3: Summary of Background Noise Survey Results, Owls Lodge

- 5.7 On the basis of the background noise surveys described above Table 4 summarises the derived representative background noise levels used in the noise impact assessment.

Receptor	Day, Time of Day and Noise Level			
	Monday to Friday		Saturday	
	06:00- 07:00	07:00- 20:00	06:00- 07:00	07:00- 14:00
Drayton Park	62 dB LA90,15 min	62 dB LA90,1 hr	58 dB LA90,15 min	62 dB LA90,1 hr
Owls Lodge	41 dB LA90,15 min	40 dB LA90,1 hr	40 dB LA90,15 min	40 dB LA90,1 hr

Table 4: Representative Background Noise Levels at Receptor Locations

6.0 SOURCE-TERM NOISE LEVELS

- 6.1 The process will involve the importation of IBA material by HGV and stored on the existing 'raw IBA stockpile area' in stockpiles with heights of up to 10 m. The material will be moved using a 360 degree excavator.
- 6.2 IBA building will process the material. This operates a series of screens, trommels and conveyors. Source-term noise data for this has been obtained from an occupational workplace noise exposure assessment undertaken by Envirochem at a similar site operated by Collards Recycling in Milton Keynes. This has established an internal reverberant noise level of 88 dB L_{Aeq} when the building parameters are taken into account. The source-term noise data is provided in Appendix D.
- 6.3 The enhanced IBA recovery facility will comprise four areas. A canopy loading area will lead into the three processing areas and will use 2 telehandlers/ forklift trucks to load and offload. HGVs will pass through the canopy area into the materials receipt area to offload and a loading shovel will operate in the space together with conveyor systems to transport materials to the neighbouring dry and wet processing plants. Calculations indicate a reverberant noise level of 89 dB L_{Aeq} in this space.
- 6.4 The clean wet area will use a forklift truck together with processing plant that will include a belt press, loadall metal collectors and separation plant. This plant will be manufactured by Parnaby Cyclones Ltd. Similar units operate at plants in Belfast and Norwich and 24 Acoustics has visited and surveyed both. The operation at Norwich has the greatest synergy with the proposed Fortis site and extracts from this survey report are provided in Appendix D. Assuming a concrete floor and composite steel panels for roofing and walls we estimate a reverberant noise level in the space of 87 dB L_{Aeq} .
- 6.5 The dry processing area will contain various conveyors, sorting plant and a mill. Source noise data has been provided by the system manufacturer Trenso Technik and is also reproduced in part in Appendix D. This indicates that the bailing mill will be the dominant source of noise with a noise level of 94 dB L_{Aeq} at a distance of 1.6 m. It is possible that this will be housed in an acoustic enclosure, however, our calculations assume that the plant will be open resulting in an internal reverberant noise level of 86 dB L_{Aeq} .
- 6.6 The final product will be transported by HGV and stored externally in the 'front field' which is located to the far west of the site. A 360 excavator and loading shovel will operate within the space.

6.5 Mobile plant to be used externally to the buildings will include the following:

- HGVs. On the basis of the proposed increased throughout it is assumed that there could be a maximum of 15 total movements in a worst-case assessment hour (between 07:00 and 20:00 hours Monday to Friday and 07:00 and 14:00 on Saturdays);
- Volvo 25 tonne excavator & Komatsu loading shovel which will operate externally at all times within the front field which is located to the west of the facility;
- 360 excavator for windrow management;
- Telehandler operating externally between the replant IBA facility and the enhanced building.
- 360 excavator and loading shovel within the front field.

6.6 Source-term sound power level data for the mobile plant to be used has been determined from measurements undertaken previously on site and from 24 Acoustics' database of similar plant. The sound power level data used in the assessment is shown in Table 5 below.

Plant Item	Plant Sound Power Level, dB								
	Overall	Octave Band Centre Frequency, Hz							
	A	63	125	250	500	1k	2k	4k	8k
HGV	85	85	86	81	82	78	77	73	67
Volvo excavator	107	108	107	104	105	101	98	94	87
Komatsu Loading shovel	107	109	110	105	104	102	100	94	90
Tractor	109	108	109	103	107	101	102	98	93

Table 5: Plant Sound Power Levels

6.7 The calculations and modelling of the proposed phases of operation has been undertaken using IMMI 2024 noise mapping software. The software has used the calculation methodology of ISO 9613 [Reference 2] to determine the noise level from each source at each receptor location, taking into account the effects of geometric divergence, screening and ground and atmospheric absorption. The model has assumed 50% hard/ soft ground, an ambient temperature of 10 degrees C and relative humidity of 70%.

6.8 The model has determined the following noise levels at receptors from the operations.

- Owls Lodge Farm: 40 dB $L_{Aeq,T}$;
- Drayton Park: 45 dB $L_{Aeq,T}$

6.9 The associated noise contour maps are shown in Figures 4 and 5.

7.0 ASSESSMENT OF IMPACT

Noise Impact Assessment

7.1 An assessment of the impact of noise associated with the proposed periods of operation has been undertaken in accordance with the rating methodology of BS 4142 and is shown in the tables below. The noise is not considered likely to be of sufficient character at the receptors to require a character correction in accordance with the requirements of the standard.

	Impact Period and Noise Level			
	Weekdays		Saturdays	
	06:00-07:00	07:00-20:00	06:00-07:00	07:00-20:00
Representative Background Noise Level, dB $L_{A90, 1 \text{ hour}}$	62	62	58	62
Source Specific Noise Level, dB $L_{Aeq, 1 \text{ hour}}$	45	45	45	45
Rating Correction for Noise Character, dBA	0	0	0	0
Rating Noise Level, dBA	45	45	45	45
Difference between background and rating level, dBA	-17	-17	-13	-17

Table 6: BS4142 Noise Impact Assessment, Drayton Park

	Impact Period and Noise Level			
	Weekdays		Saturdays	
	06:00-07:00	07:00-20:00	06:00-07:00	07:00-20:00
Representative Background Noise Level, dB $L_{A90/15 \text{ min}} L_{A90, 1 \text{ hour}}$	41	40	40	40
Source Specific Noise Level, dB $L_{Aeq, 15 \text{ min}} / L_{Aeq, 1 \text{ hour}}$	40	40	40	40
Rating Correction for Noise Character, dBA	0	0	0	0
Rating Noise Level, dBA	40	40	40	40
Difference between background and rating level, dBA	-1	0	0	0

Table 7: BS4142 Noise Impact Assessment, Owls Lodge Farm

7.2 The assessment indicates that the noise impact at Drayton Park will be significantly lower than the prevailing background noise levels at all times, resulting in a negligible noise impact. At Owls Lodge Farm the noise level will be around the same level as the background noise level resulting in a 'low' noise impact subject to context (as defined in BS 4142).

- 7.3 BS 4142 requires the assessment consider the context of the impact. Contextual considerations can include the absolute level of the sound, the character of the residual sound environment and the sensitivity of the receptors. In this case as the noise impact is between low and negligible there are not considered to be any contextual considerations.
- 7.4 Noise from the operations are unlikely to be audible at Drayton Park but may occasionally be audible at Owls Lodge. This would not, however, be intrusive and would cause an impact magnitude, as defined in the PPG, below LOAEL with no observed adverse effect.

8.0 CONCLUSIONS

- 8.1 Fortis IBA Ltd (Fortis) is seeking planning consent to replace and extend the existing Incinerator Bottom Ash (IBA) plant at the A303 Enviropark. 24 Acoustics Ltd has been retained by Fortis to undertake an assessment of the potential noise impact of the proposal in support of the planning application for the changes and also in support of the application to vary the site's Environmental Permit.
- 8.2 The proposals include the deconstruction and removal of the existing IBA processing plant and the construction of an upgraded, replacement plant (replant); as well as a new, enhanced IBA recovery facility located within the extension area.
- 8.3 The assessment has been performed following extensive background noise surveys at the nearest residential receptors to the site and detailed acoustic modelling of the noise emissions from the proposals.
- 8.4 The assessment has indicated that the proposals will result in a low noise impact at Owls Lodge which may be audible from time to time (eg between significant lulls in traffic movements) but with no adverse effect. The noise impact at the housing and hotel at Drayton Park will be negligible at all times.

REFERENCES

1. British Standards Institution. British Standard 4142:2014 Methods for rating and assessing industrial and commercial sound, 2014.
2. International Standards ISO 9613-1: 2024 Attenuation of sound during propagation outdoors Part 1 – Calculation of the absorption of sound by the atmosphere and ISO 9613-2: 1996 Attenuation of Sound during propagation outdoors Part 2 – General method of calculation.

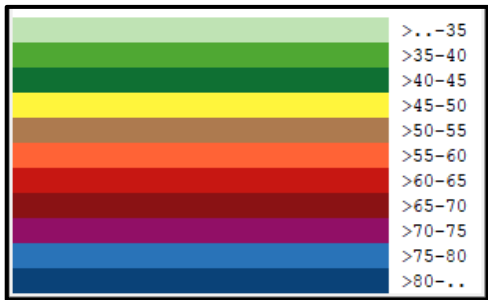


Project: A303 IBA Site	Title: Approximate Site Location, Receptors & Noise Survey Locations		 24Acoustics
DWG No: Figure 1	Scale: N.T.S.	Rev: -	
Date: July 2025	Drawn By: RP	Job No: 10890	

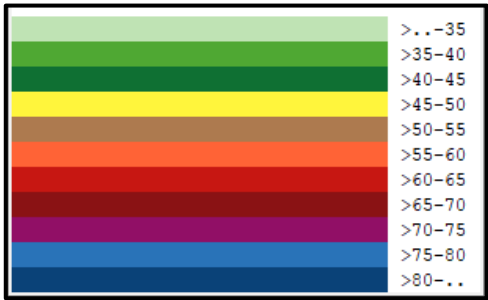




Project: A303 IBA Site	Title: Process Plant Layout		 24Acoustics
DWG No: Figure 3	Scale: N.T.S.	Rev: -	
Date: July 2025	Drawn By: RP	Job No: 10890-1	



Project: A303 IBA Site		Title: Site Noise Contour Map- Daytime		
DWG No: Figure 4	Scale: N.T.S.	Rev: -		
Date: July 2025	Drawn By:	Job No: 10980-1		



Project: A303 IBA Site	Title: Site Noise Contour Map- 06:00- 07:00 hours		 24Acoustics
DWG No: Figure 5	Scale: N.T.S.	Rev: -	
Date: July 2025	Drawn By:	Job No: 10890-1	

APPENDIX A: ACOUSTIC TERMINOLOGY

Noise is defined as unwanted sound. The range of audible sound is from 0 to 140 dB. The frequency response of the ear is usually taken to be around 18 Hz (number of oscillations per second) to 18000 Hz. The ear does not respond equally to different frequencies at the same level. It is more sensitive in the mid-frequency range than the lower and higher frequencies and because of this, the low and high frequency components of a sound are reduced in importance by applying a weighting (filtering) circuit to the noise measuring instrument. The weighting which is most widely used and which correlates best with subjective response to noise is the dBA weighting. This is an internationally accepted standard for noise measurements.

For variable sources, such as traffic, a difference of 3 dBA is just distinguishable. In addition, a doubling of traffic flow will increase the overall noise by 3 dBA. The 'loudness' of a noise is a purely subjective parameter, but it is generally accepted that an increase/ decrease of 10 dBA corresponds to a doubling/ halving in perceived loudness.

External noise levels are rarely steady, but rise and fall according to activities within an area. In attempt to produce a figure that relates this variable noise level to subjective response, a number of noise indices have been developed. These include:

- i) The L_{Amax} noise level

This is the maximum noise level recorded over the measurement period.

- ii) The L_{Aeq} noise level

This is "equivalent continuous A-weighted sound pressure level, in decibels" and is defined in British Standard BS 7445 as the "value of the A-weighted sound pressure level of a continuous, steady sound that, within a specified time interval, T , has the same mean square sound pressure as a sound under consideration whose level varies with time".

It is a unit commonly used to describe construction noise and noise from industrial premises and is the most suitable unit for the description of other forms of environmental noise. In more straightforward terms, it is a measure of energy within the varying noise.

iii) The L_{A10} noise level

This is the noise level that is exceeded for 10% of the measurement period and gives an indication of the noisier levels. It is a unit that has been used over many years for the measurement and assessment of road traffic noise.

iv) The L_{A90} noise level

This is the noise level that is exceeded for 90% of the measurement period and gives an indication of the noise level during the quieter periods. It is often referred to as the background noise level and is used in the assessment of disturbance from industrial noise.

APPENDIX B: INSTRUMENTATION CALIBRATION CERTIFICATES

Calibration Certificate

Calibration undertaken by Noise and Vibration Calibration Services Ltd
The Old Kennels Building, 3 Bassett Avenue, Southampton, SO16 7DP
+44 (0)23 8155 5020 hello@nvcal.co.uk



IEC 61672-3:2006 Calibration

Procedures from IEC 61672-3:2006 were used to perform the periodic tests on **18th December 2023** for the following sound level meter:

Rion NL-31, serial number 01141958

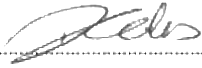
The following tests were undertaken:

Acoustical signal tests of a frequency weighting	PASS
Electrical signal tests of frequency weightings	PASS
Frequency and time weightings at 1 kHz	PASS
Long-term stability	PASS
Level linearity on the reference level range	PASS
Level linearity including the level range control	PASS
Toneburst response	PASS
Peak C sound level	PASS
Overload indication	PASS

Calibration result

Sound level meter: Rion NL-31, serial 01141958
Performance Specification: IEC 61672-3:2006 Class 1
Date: 18th December 2023
Certificate Number: C00453

PASS

Approved Signatory: 

Notes

No information on the uncertainty of measurement, required by 11.7 of IEC 61672-3:2006, of the adjustment data given in the instruction manual or obtained from the manufacturer or supplier of the sound level meter, or the manufacturer of the microphone, or the manufacturer of the multi-frequency sound calibrator was published in the instruction manual or made available by the manufacturer or supplier. The uncertainty of measurement of the adjustment data has therefore been assumed to be numerically zero for the purpose of this periodic test. If these uncertainties are not actually zero, there is a possibility that the frequency response of the sound level meter may not conform to the requirements of IEC 61672-1:2002.

This certificate provides traceability of measurement to the SI system of units and to units of measurements realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate Number: C00453

Page 1 of 2

Calibration Certificate

Calibration undertaken by Noise and Vibration Calibration Services Ltd
The Old Kennels Building, 3 Bassett Avenue, Southampton, SO16 7DP
+44 (0)23 8155 5020 hello@nvcal.co.uk



IEC 61672-3:2006 Calibration

Procedures from IEC 61672-3:2006 were used to perform the periodic tests on **24th July 2024** for the following sound level meter:

Rion NL-31, serial number 00952329

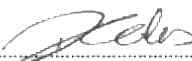
The following tests were undertaken:

Acoustical signal tests of a frequency weighting	PASS
Electrical signal tests of frequency weightings	PASS
Frequency and time weightings at 1 kHz	PASS
Long-term stability	PASS
Level linearity on the reference level range	PASS
Level linearity including the level range control	PASS
Toneburst response	PASS
Peak C sound level	PASS
Overload indication	PASS

Calibration result

Sound level meter: Rion NL-31, serial 00952329
Performance Specification: IEC 61672-3:2006 Class 1
Date: 24th July 2024
Certificate Number: C00499

PASS

Approved Signatory: 

Notes

No information on the uncertainty of measurement, required by 11.7 of IEC 61672-3:2006, of the adjustment data given in the instruction manual or obtained from the manufacturer or supplier of the sound level meter, or the manufacturer of the microphone, or the manufacturer of the multi-frequency sound calibrator was published in the instruction manual or made available by the manufacturer or supplier. The uncertainty of measurement of the adjustment data has therefore been assumed to be numerically zero for the purpose of this periodic test. If these uncertainties are not actually zero, there is a possibility that the frequency response of the sound level meter may not conform to the requirements of IEC 61672-1:2002.

This certificate provides traceability of measurement to the SI system of units and to units of measurements realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate Number: C00499

Page 1 of 2

Calibration Certificate

Calibration undertaken by Noise and Vibration Calibration Services Ltd
The Old Kennels Building, 3 Bassett Avenue, Southampton, SO16 7DP
+44 (0)23 8155 5020 hello@nvcal.co.uk



IEC 60942:2003 Calibration

Periodic tests were performed in accordance with procedures from Annex B of IEC 60942:2003 (using the Insert Voltage Technique) on **6th January 2025** for the following sound calibrator:

Brüel & Kjær 4231, serial number 2253117

Calibration result

Sound Calibrator: Brüel & Kjær 4231, serial 2253117
Performance Specification: IEC 60942:2003 Class 1
Date: 6th January 2025
Certificate Number: C00541

PASS

Approved Signatory:

Test results

Level		93.87	dB re 20 µPa	+/- 0.092 dB
		113.90	dB re 20 µPa	+/- 0.092 dB
Frequency	@ 94 dB	999.975	Hz	+/- 0.01 Hz
	@ 114 dB	999.974	Hz	+/- 0.01 Hz
Distortion	@ 94 dB	0.35	%	+/- 0.016 %
	@ 114 dB	0.14	%	+/- 0.011 %

Notes

As public evidence was available, from a testing organisation (PTB) responsible for approving the result of pattern evaluation tests, to demonstrate that the model of sound calibrator fully conformed to the requirements for pattern evaluation described in Annex A of IEC 60942:2003, the sound calibrator tested is considered to conform to all the class 1 requirements of IEC 60942:2003.

This certificate provides traceability of measurement to the SI system of units and to units of measurements realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate Number: C00541

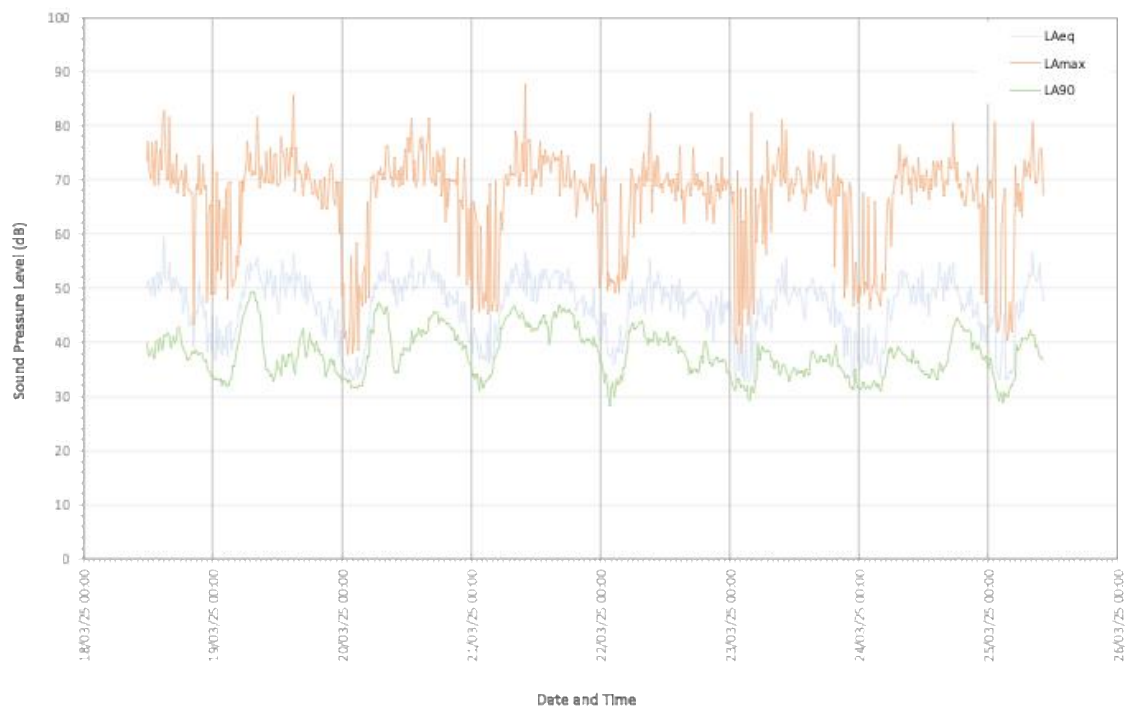
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APPENDIX C: ENVIRONMENTAL NOISE MEASUREMENTS & WEATHER RESULTS

Figure C1: Background Noise Survey Results, Drayton Park



Figure C2: Background Noise Survey Results, The Street/ The Avenue



Date	Time	Temp Out	Wind Speed	Wind Dir	Rain	Date	Time	Temp Out	Wind Speed	Wind Dir	Rain
						19/03/2025	00:00	2.2	0.9	NNE	
						19/03/2025	00:15	2.1	0.9	NNE	
						19/03/2025	00:30	2.1	0.4	NNE	
						19/03/2025	00:45	1.7	0.4	NNE	
						19/03/2025	01:00	1.7	0.4	NNE	
						19/03/2025	01:15	1.9	0.9	NNE	
						19/03/2025	01:30	1.9	0.9	NNE	
						19/03/2025	01:45	1.8	0.9	NNE	
						19/03/2025	02:00	1.7	0.9	NNE	
						19/03/2025	02:15	1.6	0.9	NNE	
						19/03/2025	02:30	1.3	0.9	NNE	
						19/03/2025	02:45	1.2	0.9	NNE	
						19/03/2025	03:00	1.1	0.9	NNE	
						19/03/2025	03:15	1.1	0.4	NNE	
						19/03/2025	03:30	1.3	0.9	NNE	
						19/03/2025	03:45	1.3	0.9	NNE	
						19/03/2025	04:00	1.2	0.9	NNE	
						19/03/2025	04:15	1.3	0.9	NNE	
						19/03/2025	04:30	1.1	0.9	NNE	
						19/03/2025	04:45	1.1	0.9	NNE	
						19/03/2025	05:00	0.8	0.4	NNE	
						19/03/2025	05:15	0.4		N	
						19/03/2025	05:30	0.5	0.4	NNE	
						19/03/2025	05:45	0.7	0.4	NNE	
						19/03/2025	06:00	0.9	0.4	NNE	
						19/03/2025	06:15	1.1	0.9	NNE	
						19/03/2025	06:30	1.2	0.9	NNE	
						19/03/2025	06:45	1.3	0.9	NNE	
						19/03/2025	07:00	1.8	1.3	NNE	
						19/03/2025	07:15	2.3	0.9	NNE	
						19/03/2025	07:30	2.7	0.4	NNE	
						19/03/2025	07:45	3.2	0.9	NNE	
						19/03/2025	08:00	4.1	0.9	NNE	
						19/03/2025	08:15	4.7	0.9	NNE	
						19/03/2025	08:30	5.4	0.4	NNE	
						19/03/2025	08:45	6.2	0.9	NNE	
						19/03/2025	09:00	7.1	0.4	NNE	
						19/03/2025	09:15	7.8	0.4	NNE	
						19/03/2025	09:30	9		NE	
						19/03/2025	09:45	10.5	0.4	NE	
						19/03/2025	10:00	11.1	0.9	ENE	
						19/03/2025	10:15	11.6	0.9	NE	
						19/03/2025	10:30	11.9	0.9	NE	
18/03/2025	10:45	9.5	3.6	E		19/03/2025	10:45	12.4	0.9	NE	
18/03/2025	11:00	9.4	4	E		19/03/2025	11:00	13.6	0.9	NE	
18/03/2025	11:15	9.7	3.6	ESF		19/03/2025	11:15	13.9	1.3	E	
18/03/2025	11:30	10	3.6	E		19/03/2025	11:30	14.8	1.3	E	
18/03/2025	11:45	10.4	3.1	E		19/03/2025	11:45	15.2	1.8	ENE	
18/03/2025	12:00	10.6	3.1	E		19/03/2025	12:00	15.2	1.8	ESE	
18/03/2025	12:15	11.2	2.7	E		19/03/2025	12:15	14.6	2.2	ESE	
18/03/2025	12:30	11.3	3.1	ENE		19/03/2025	12:30	15	1.8	ESE	
18/03/2025	12:45	11.5	3.1	ENE		19/03/2025	12:45	15.2	1.3	ESE	
18/03/2025	13:00	11.9	3.6	ENE		19/03/2025	13:00	15.3	1.3	ESE	
18/03/2025	13:15	11.8	2.7	NE		19/03/2025	13:15	15.4	1.8	ESE	
18/03/2025	13:30	12	3.1	NE		19/03/2025	13:30	15.9	2.2	SE	
18/03/2025	13:45	12	3.1	NE		19/03/2025	13:45	15.6	1.8	E	
18/03/2025	14:00	12.3	3.1	NE		19/03/2025	14:00	15.2	1.8	E	
18/03/2025	14:15	12.4	3.1	NE		19/03/2025	14:15	15.1	1.8	ESE	
18/03/2025	14:30	12.7	2.7	NE		19/03/2025	14:30	15	1.8	E	
18/03/2025	14:45	12.9	3.1	NE		19/03/2025	14:45	14.7	1.8	ESE	
18/03/2025	15:00	12.7	3.1	NE		19/03/2025	15:00	14.4	1.3	E	
18/03/2025	15:15	12.6	4	NE		19/03/2025	15:15	14.5	0.9	ESE	
18/03/2025	15:30	12.7	2.7	NE		19/03/2025	15:30	14.6	0.4	SE	
18/03/2025	15:45	12.7	3.1	NE		19/03/2025	15:45	14.6	0.4	SSW	
18/03/2025	16:00	12.5	3.6	NE		19/03/2025	16:00	14.5	0.4	S	
18/03/2025	16:15	12.8	3.6	NE		19/03/2025	16:15	14.5	0.9	SE	
18/03/2025	16:30	12.8	3.1	ENE		19/03/2025	16:30	14.3	1.3	ESE	
18/03/2025	16:45	11.9	2.7	NE		19/03/2025	16:45	14	0.9	SE	
18/03/2025	17:00	11.1	3.1	NE		19/03/2025	17:00	13.8	0.4	SE	
18/03/2025	17:15	10.7	2.7	NE		19/03/2025	17:15	13.6	0.9	ESE	
18/03/2025	17:30	10.2	2.7	NE		19/03/2025	17:30	13.3	0.4	ESE	
18/03/2025	17:45	9.8	2.2	NE		19/03/2025	17:45	13.2		ESE	
18/03/2025	18:00	9.1	1.8	NE		19/03/2025	18:00	13	0.4	ESE	
18/03/2025	18:15	8.3	1.3	NE		19/03/2025	18:15	12.8	0.9	ESE	
18/03/2025	18:30	8	1.3	NE		19/03/2025	18:30	12.4	0.4	ESE	
18/03/2025	18:45	7.3	0.4	ENE		19/03/2025	18:45	12.2		ESE	
18/03/2025	19:00	6.8	0.9	NE		19/03/2025	19:00	12.1	0.4	ESE	
18/03/2025	19:15	6.2	0.4	NE		19/03/2025	19:15	11.9		ESE	
18/03/2025	19:30	5.7	1.3	NNE		19/03/2025	19:30	11.7		ESE	
18/03/2025	19:45	5.6	1.8	NNE		19/03/2025	19:45	11.5		ESE	
18/03/2025	20:00	5.4	1.3	NNE		19/03/2025	20:00	11.2		E	
18/03/2025	20:15	5.2	1.3	NNE		19/03/2025	20:15	10.9		—	
18/03/2025	20:30	4.9	0.9	NNE		19/03/2025	20:30	10.8		—	
18/03/2025	20:45	4.5	0.9	NNE		19/03/2025	20:45	10.4		—	
18/03/2025	21:00	4.4	0.9	NNE		19/03/2025	21:00	10.1		—	
18/03/2025	21:15	4.2	0.9	NE		19/03/2025	21:15	9.7		E	
18/03/2025	21:30	3.7	0.4	NE		19/03/2025	21:30	9.5		—	
18/03/2025	21:45	3.6	0.9	NE		19/03/2025	21:45	9.3		—	
18/03/2025	22:00	3.5	0.4	NE		19/03/2025	22:00	8.9		ENE	
18/03/2025	22:15	3.3	0.4	NE		19/03/2025	22:15	8.8		—	
18/03/2025	22:30	3.1	0.4	NNE		19/03/2025	22:30	8.7		—	
18/03/2025	22:45	3.1	0.4	NE		19/03/2025	22:45	8.4		—	
18/03/2025	23:00	2.6	0.4	NNE		19/03/2025	23:00	8.3		—	
18/03/2025	23:15	2.2		N		19/03/2025	23:15	8.3		N	
18/03/2025	23:30	2.2	0.4	NNE		19/03/2025	23:30	8.4		N	
18/03/2025	23:45	2.2	0.9	NNE		19/03/2025	23:45	8.2		—	

Table C1: Meteorological Survey Results

cont'

Date	Time	Temp Out	Wind Speed	Wind Dir	Rain	Date	Time	Temp Out	Wind Speed	Wind Dir	Rain
20/03/2025	00:00	8.2		NNE		21/03/2025	00:00	11.4	0.9	ENE	
20/03/2025	00:15	8		NNE		21/03/2025	00:15	11.6	0.4	ENE	
20/03/2025	00:30	8.1		NNE		21/03/2025	00:30	11.4	0.4	ENE	
20/03/2025	00:45	8		---		21/03/2025	00:45	11.1	0.4	ENE	
20/03/2025	01:00	8.1		NE		21/03/2025	01:00	11	0.4	ENE	
20/03/2025	01:15	8.1		---		21/03/2025	01:15	10.8	0.9	NE	
20/03/2025	01:30	8.1		NE		21/03/2025	01:30	11	0.9	ENE	
20/03/2025	01:45	8.1		---		21/03/2025	01:45	11.2	0.9	NE	
20/03/2025	02:00	8.1		NNE		21/03/2025	02:00	11.6	0.9	NE	
20/03/2025	02:15	7.9		NNE		21/03/2025	02:15	11.5	0.4	E	
20/03/2025	02:30	8		NNE		21/03/2025	02:30	11.3	0.4	ENE	
20/03/2025	02:45	8.1		NNE		21/03/2025	02:45	11.1	0.4	ENE	
20/03/2025	03:00	8.1		NNE		21/03/2025	03:00	10.9	0.9	NE	
20/03/2025	03:15	8.2		NE		21/03/2025	03:15	11.1	0.9	NE	
20/03/2025	03:30	8.2		N		21/03/2025	03:30	10.9	0.9	NE	
20/03/2025	03:45	8.6	0.4	NNE		21/03/2025	03:45	11.1	1.3	NE	
20/03/2025	04:00	8.6		NE		21/03/2025	04:00	11.1	1.3	NE	
20/03/2025	04:15	8.4		NE		21/03/2025	04:15	11.2	1.3	FNE	
20/03/2025	04:30	8.4		---		21/03/2025	04:30	11.1	1.3	FNE	
20/03/2025	04:45	8.1		---		21/03/2025	04:45	11.3	1.3	FNE	
20/03/2025	05:00	7.9		---		21/03/2025	05:00	11.2	1.3	FNE	
20/03/2025	05:15	7.6		N		21/03/2025	05:15	11.1	1.3	FNE	
20/03/2025	05:30	7.4		N		21/03/2025	05:30	10.9	1.3	FNE	
20/03/2025	05:45	7.3		N		21/03/2025	05:45	10.9	1.3	FNE	
20/03/2025	06:00	7.2		N		21/03/2025	06:00	10.7	1.3	FNE	
20/03/2025	06:15	7.2		NNE		21/03/2025	06:15	10.7	1.3	FNE	
20/03/2025	06:30	7.2		NNE		21/03/2025	06:30	10.8	1.3	NE	
20/03/2025	06:45	7.2		NNE		21/03/2025	06:45	10.8	1.3	ENE	
20/03/2025	07:00	7.7		NNE		21/03/2025	07:00	10.7	1.8	NE	
20/03/2025	07:15	8.2		---		21/03/2025	07:15	10.9	1.8	NE	
20/03/2025	07:30	8.7		---		21/03/2025	07:30	11.1	1.8	NE	
20/03/2025	07:45	9		---		21/03/2025	07:45	11.3	2.2	NE	
20/03/2025	08:00	9.4		---		21/03/2025	08:00	11.6	2.2	NE	
20/03/2025	08:15	9.8		---		21/03/2025	08:15	11.9	2.7	NE	
20/03/2025	08:30	10.4		NE		21/03/2025	08:30	12.1	2.7	NE	
20/03/2025	08:45	11.2		NE		21/03/2025	08:45	12.3	2.2	NE	
20/03/2025	09:00	12.3		NE		21/03/2025	09:00	12.7	2.7	NE	
20/03/2025	09:15	13.1	0.4	NE		21/03/2025	09:15	12.9	2.7	NE	
20/03/2025	09:30	13.8	0.4	NE		21/03/2025	09:30	13.1	2.7	ENE	
20/03/2025	09:45	14.4	0.4	NE		21/03/2025	09:45	13.4	2.7	NE	
20/03/2025	10:00	15.1	0.9	ENE		21/03/2025	10:00	14	1.8	E	
20/03/2025	10:15	15.7	0.9	E		21/03/2025	10:15	14.4	2.2	ENE	
20/03/2025	10:30	16.2	0.9	ESE		21/03/2025	10:30	14.7	3.1	ENE	
20/03/2025	10:45	16.8	1.3	E		21/03/2025	10:45	15.1	2.7	ENE	
20/03/2025	11:00	17.4	1.8	ESE		21/03/2025	11:00	15.2	3.1	ENE	
20/03/2025	11:15	18	2.2	E		21/03/2025	11:15	15.7	2.7	ENE	
20/03/2025	11:30	18.1	2.2	E		21/03/2025	11:30	16.2	3.1	ENE	
20/03/2025	11:45	18.6	2.2	SE		21/03/2025	11:45	15.8	2.7	ENE	
20/03/2025	12:00	18.9	2.2	FSF		21/03/2025	12:00	15.8	3.1	ENE	
20/03/2025	12:15	18.8	2.2	SE		21/03/2025	12:15	16	3.6	FNE	
20/03/2025	12:30	19.1	2.7	FSF		21/03/2025	12:30	16.1	3.6	FNE	
20/03/2025	12:45	19.3	2.2	FSF		21/03/2025	12:45	16.3	3.1	FSF	
20/03/2025	13:00	19.1	3.1	FSF		21/03/2025	13:00	16.2	3.1	F	
20/03/2025	13:15	18.9	3.6	FSF		21/03/2025	13:15	16.1	3.6	F	
20/03/2025	13:30	18.8	3.1	FSF		21/03/2025	13:30	16.2	2.7	F	
20/03/2025	13:45	19.1	2.7	SE		21/03/2025	13:45	16.1	3.6	ESE	
20/03/2025	14:00	18.9	3.1	ESE		21/03/2025	14:00	15.8	4	E	
20/03/2025	14:15	19.3	2.7	ESE		21/03/2025	14:15	15.3	3.6	ESE	
20/03/2025	14:30	18.9	3.1	ESE		21/03/2025	14:30	16	2.7	E	
20/03/2025	14:45	18.9	3.1	E		21/03/2025	14:45	16.5	3.1	ENE	
20/03/2025	15:00	18.9	3.1	E		21/03/2025	15:00	16.6	2.7	E	
20/03/2025	15:15	18.8	3.1	ESE		21/03/2025	15:15	16.4	3.6	ESE	
20/03/2025	15:30	18.8	3.1	E		21/03/2025	15:30	16.3	4	ESE	
20/03/2025	15:45	18.9	2.7	ESE		21/03/2025	15:45	16.2	3.6	ESE	
20/03/2025	16:00	19.2	2.2	ESE		21/03/2025	16:00	16.4	3.1	E	
20/03/2025	16:15	18.7	3.1	E		21/03/2025	16:15	16.2	4	E	
20/03/2025	16:30	18.6	2.7	ESE		21/03/2025	16:30	15.8	4.5	ESE	
20/03/2025	16:45	18.3	2.7	ESE		21/03/2025	16:45	15.6	3.6	ESE	
20/03/2025	17:00	18	2.7	ESE		21/03/2025	17:00	15.5	3.6	ESE	
20/03/2025	17:15	17.7	2.2	ESE		21/03/2025	17:15	15.4	3.6	E	
20/03/2025	17:30	17.1	2.2	ESE		21/03/2025	17:30	15.3	3.1	ESE	
20/03/2025	17:45	16.4	1.3	ESE		21/03/2025	17:45	15.2	4	ESE	
20/03/2025	18:00	15.8	0.9	ESE		21/03/2025	18:00	14.9	2.7	E	
20/03/2025	18:15	15.1		ENE		21/03/2025	18:15	14.6	2.7	ESE	
20/03/2025	18:30	14.6	0.4	ENE		21/03/2025	18:30	14	2.2	ESE	
20/03/2025	18:45	14.1	0.4	ENE		21/03/2025	18:45	13.7	2.2	FSF	0.2
20/03/2025	19:00	13.7		FNE		21/03/2025	19:00	13	1.8	FSF	0.6
20/03/2025	19:15	13.3		FNE		21/03/2025	19:15	12.5	0.9	FSF	0.2
20/03/2025	19:30	13.2		FNE		21/03/2025	19:30	12.3	0.9	F	
20/03/2025	19:45	12.6		FSF		21/03/2025	19:45	12.1	1.3	F	0.2
20/03/2025	20:00	12		FNE		21/03/2025	20:00	11.9	1.3	F	
20/03/2025	20:15	12.1		FNE		21/03/2025	20:15	11.8	1.3	F	0.2
20/03/2025	20:30	12.2		FNE		21/03/2025	20:30	11.7	1.8	ENE	
20/03/2025	20:45	12.2	0.4	ENE		21/03/2025	20:45	11.6	1.3	ENE	
20/03/2025	21:00	12.2	0.9	ENE		21/03/2025	21:00	11.6	1.8	ENE	
20/03/2025	21:15	12.2	0.4	FNE		21/03/2025	21:15	11.5	1.3	ENE	
20/03/2025	21:30	12.2	0.9	ENE		21/03/2025	21:30	11.6	1.3	ENE	
20/03/2025	21:45	12.1	0.9	ENE		21/03/2025	21:45	11.6	1.3	ENE	
20/03/2025	22:00	12.1	0.4	ENE		21/03/2025	22:00	11.7	0.9	E	
20/03/2025	22:15	11.8	0.4	E		21/03/2025	22:15	11.9	1.3	E	
20/03/2025	22:30	11.4	0.4	ENE		21/03/2025	22:30	12	1.8	E	
20/03/2025	22:45	11.2	0.4	ENE		21/03/2025	22:45	11.9	2.2	E	
20/03/2025	23:00	11.2	0.9	ENE		21/03/2025	23:00	12	1.8	ESE	
20/03/2025	23:15	11.1	0.4	ENE		21/03/2025	23:15	12	1.3	ESE	
20/03/2025	23:30	11.2	0.9	ENE		21/03/2025	23:30	12.2	1.8	ESE	
20/03/2025	23:45	11.3	0.9	ENE		21/03/2025	23:45	12.1	1.8	ESE	

Table C1: Meteorological Survey Results

cont'

Date	Time	Temp Out	Wind Speed	Wind Dir	Rain	Date	Time	Temp Out	Wind Speed	Wind Dir	Rain
22/03/2025	00:00	11.8	1.8	ESE		23/03/2025	00:00	7.3		N	
22/03/2025	00:15	11.6	1.8	E		23/03/2025	00:15	7.2		N	
22/03/2025	00:30	11.3	1.8	ESE		23/03/2025	00:30	7		N	
22/03/2025	00:45	11.2	1.8	E		23/03/2025	00:45	6.8		NE	
22/03/2025	01:00	10.8	0.9	ESE		23/03/2025	01:00	6.6		---	
22/03/2025	01:15	10.6	0.9	E		23/03/2025	01:15	6.8		---	
22/03/2025	01:30	10.3	0.9	ENE		23/03/2025	01:30	6.8		NNW	
22/03/2025	01:45	10.3	0.9	ENE		23/03/2025	01:45	7.8		NNE	
22/03/2025	02:00	10.2	1.3	ENE		23/03/2025	02:00	8.6	0.4	NNE	
22/03/2025	02:15	10.1	0.9	ESE		23/03/2025	02:15	8.4	0.4	NNE	
22/03/2025	02:30	9.9	0.4	E		23/03/2025	02:30	8.2		NNE	
22/03/2025	02:45	9.7	0.4	E		23/03/2025	02:45	8.1		NNW	
22/03/2025	03:00	9.7	0.4	E		23/03/2025	03:00	8.4		NNE	
22/03/2025	03:15	9.7	0.9	E		23/03/2025	03:15	8.4		NNE	
22/03/2025	03:30	9.8	1.3	E		23/03/2025	03:30	8.2		ESE	
22/03/2025	03:45	9.8	0.9	E		23/03/2025	03:45	8.1		E	
22/03/2025	04:00	9.8	0.9	E		23/03/2025	04:00	8.1		N	
22/03/2025	04:15	9.6	0.9	E		23/03/2025	04:15	8.1		N	
22/03/2025	04:30	9.4	0.4	E		23/03/2025	04:30	7.7		---	
22/03/2025	04:45	9.3	0.4	ENE		23/03/2025	04:45	7.4		NW	
22/03/2025	05:00	9.1		ENE		23/03/2025	05:00	7.1		NW	
22/03/2025	05:15	9		E		23/03/2025	05:15	7		NNW	
22/03/2025	05:30	8.7		E		23/03/2025	05:30	6.6		NNW	
22/03/2025	05:45	8.7		E		23/03/2025	05:45	6.6		NNE	
22/03/2025	06:00	8.9	0.4	E		23/03/2025	06:00	6.8		NW	
22/03/2025	06:15	9.1	0.4	ENE		23/03/2025	06:15	6.5		---	
22/03/2025	06:30	9.1		ENE		23/03/2025	06:30	6.5		---	
22/03/2025	06:45	9.1	0.4	ENE		23/03/2025	06:45	6.2		---	
22/03/2025	07:00	9.2	0.4	ENE		23/03/2025	07:00	6.9		NNE	
22/03/2025	07:15	9.6	0.9	NE		23/03/2025	07:15	8.1		NW	
22/03/2025	07:30	9.9	1.3	ENE		23/03/2025	07:30	9.1		NE	
22/03/2025	07:45	10.2	1.3	ENE		23/03/2025	07:45	9.6		WNW	
22/03/2025	08:00	10.6	1.3	ENE		23/03/2025	08:00	10.2		NW	
22/03/2025	08:15	10.9	1.3	ENE		23/03/2025	08:15	11.2		NNE	
22/03/2025	08:30	11.4	0.9	ENE		23/03/2025	08:30	12.3	0.4	NNE	
22/03/2025	08:45	11.7	1.3	E		23/03/2025	08:45	12.7	1.3	N	
22/03/2025	09:00	12	1.3	E		23/03/2025	09:00	13.1	1.8	N	
22/03/2025	09:15	12.4	1.3	E		23/03/2025	09:15	12.9	1.3	NNE	
22/03/2025	09:30	12.8	2.2	E		23/03/2025	09:30	13.3	1.8	NNE	
22/03/2025	09:45	13.2	1.8	ESE		23/03/2025	09:45	13	1.8	NNE	
22/03/2025	10:00	13.6	2.2	E		23/03/2025	10:00	12.9	1.8	NNE	
22/03/2025	10:15	13.5	2.7	E		23/03/2025	10:15	13.4	0.9	NNE	
22/03/2025	10:30	13.7	2.2	E		23/03/2025	10:30	13.2	1.3	NW	
22/03/2025	10:45	14.1	2.2	E		23/03/2025	10:45	13.3	1.3	NNE	
22/03/2025	11:00	14.5	2.2	ESF		23/03/2025	11:00	13.1	1.3	NNE	
22/03/2025	11:15	14.5	2.2	ENE		23/03/2025	11:15	13.7	1.3	NNE	
22/03/2025	11:30	14.6	2.2	E		23/03/2025	11:30	14.1	1.3	NNE	
22/03/2025	11:45	14.8	2.7	ENE		23/03/2025	11:45	14.4	1.8	NNE	
22/03/2025	12:00	14.9	2.2	ENE		23/03/2025	12:00	15.1	1.8	NW	
22/03/2025	12:15	14.7	2.7	ENE		23/03/2025	12:15	15.3	1.3	NW	
22/03/2025	12:30	14.6	2.2	E		23/03/2025	12:30	14.8	1.3	N	
22/03/2025	12:45	14.8	2.7	E		23/03/2025	12:45	15.4	1.3	NW	
22/03/2025	13:00	14.8	2.2	ESF		23/03/2025	13:00	15.2	0.9	NW	
22/03/2025	13:15	14.8	2.2	E		23/03/2025	13:15	15.1	1.3	NNE	
22/03/2025	13:30	14.7	1.8	ESF		23/03/2025	13:30	15.3	0.9	NNE	
22/03/2025	13:45	14.7	2.2	ESF		23/03/2025	13:45	15.2	1.3	NNE	
22/03/2025	14:00	14.6	2.2	ESF		23/03/2025	14:00	15.1	0.9	NNE	
22/03/2025	14:15	14.6	1.8	E		23/03/2025	14:15	14.8	1.3	NNE	
22/03/2025	14:30	14.4	1.8	E		23/03/2025	14:30	15	1.3	NNE	
22/03/2025	14:45	14.5	1.8	E		23/03/2025	14:45	15	1.3	NNE	
22/03/2025	15:00	14.5	1.8	ESF		23/03/2025	15:00	14.8	1.3	NNE	
22/03/2025	15:15	14.4	1.8	ESF		23/03/2025	15:15	14	2.2	N	
22/03/2025	15:30	14.3	1.3	E		23/03/2025	15:30	13	2.2	NNE	
22/03/2025	15:45	14.2	1.8	E		23/03/2025	15:45	12.3	1.8	NNE	0.6
22/03/2025	16:00	14.2	1.3	E		23/03/2025	16:00	12.2	1.3	NNE	
22/03/2025	16:15	14.2	1.3	ESF		23/03/2025	16:15	12.5	2.2	NNE	
22/03/2025	16:30	14.2	1.3	ESF		23/03/2025	16:30	12.6	1.8	NNE	
22/03/2025	16:45	14.3	0.9	ESF		23/03/2025	16:45	12.4	2.2	NNE	
22/03/2025	17:00	14.4	0.4	ESF		23/03/2025	17:00	11.9	3.1	NNE	
22/03/2025	17:15	14.2	0.9	ESF		23/03/2025	17:15	11.8	2.2	NNE	
22/03/2025	17:30	14	0.4	ENE		23/03/2025	17:30	11.8	1.8	NNE	
22/03/2025	17:45	13.8		ENE		23/03/2025	17:45	11.6	1.8	NNE	
22/03/2025	18:00	13.2		---		23/03/2025	18:00	11.5	0.9	NNE	
22/03/2025	18:15	12.9		---		23/03/2025	18:15	11.2	1.8	NNE	0.2
22/03/2025	18:30	12.5		---		23/03/2025	18:30	11.1	1.8	NNE	
22/03/2025	18:45	11.8		---		23/03/2025	18:45	11.1	0.9	NNE	
22/03/2025	19:00	11.6		---		23/03/2025	19:00	11	0.9	NNE	
22/03/2025	19:15	11.6		---		23/03/2025	19:15	10.9	0.4	NNE	
22/03/2025	19:30	11.3		---		23/03/2025	19:30	10.9	0.9	N	0.6
22/03/2025	19:45	11.2		---		23/03/2025	19:45	10.8	1.8	NNE	0.4
22/03/2025	20:00	10.8		---		23/03/2025	20:00	10.6	2.2	NNE	0.2
22/03/2025	20:15	10.6		---		23/03/2025	20:15	10.4	2.7	NNE	
22/03/2025	20:30	10.4		---		23/03/2025	20:30	10.3	2.2	NNE	
22/03/2025	20:45	9.7		---		23/03/2025	20:45	10.2	2.2	N	
22/03/2025	21:00	9.1		---		23/03/2025	21:00	10.2	1.8	NNE	
22/03/2025	21:15	8.8		---		23/03/2025	21:15	10.1	1.8	NNE	
22/03/2025	21:30	8.7		N		23/03/2025	21:30	9.9	1.8	NNE	0.2
22/03/2025	21:45	8.6		N		23/03/2025	21:45	9.8	1.8	N	
22/03/2025	22:00	8.6		NNE		23/03/2025	22:00	9.6	1.8	N	
22/03/2025	22:15	8.4		NNE		23/03/2025	22:15	9.5	1.8	NNE	
22/03/2025	22:30	8.2		NNE		23/03/2025	22:30	9.3	2.2	NNE	
22/03/2025	22:45	7.9		NNE		23/03/2025	22:45	9.2	2.2	NNE	
22/03/2025	23:00	7.7		NNE		23/03/2025	23:00	9.1	2.2	NNE	
22/03/2025	23:15	7.5		---		23/03/2025	23:15	9	2.7	NNE	
22/03/2025	23:30	7.4		NNW		23/03/2025	23:30	8.8	2.7	NNE	
22/03/2025	23:45	7.1		N		23/03/2025	23:45	8.7	3.1	NNE	

Table C1: Meteorological Survey Results

cont'

Date	Time	Temp Out	Wind Speed	Wind Dir	Rain	Date	Time	Temp Out	Wind Speed	Wind Dir	Rain
24/03/2025	00:00	8.4	2.7	NNE		25/03/2025	00:00	2.4		—	
24/03/2025	00:15	8.3	2.2	NNE		25/03/2025	00:15	2.4		—	
24/03/2025	00:30	8.1	1.8	NNE		25/03/2025	00:30	2.5		—	
24/03/2025	00:45	7.9	2.2	NNE		25/03/2025	00:45	1.8		—	
24/03/2025	01:00	7.7	1.8	NNE		25/03/2025	01:00	1.5		—	
24/03/2025	01:15	7.6	2.2	NNE		25/03/2025	01:15	1.4		—	
24/03/2025	01:30	7.5	2.7	NNE		25/03/2025	01:30	1.6		—	
24/03/2025	01:45	7.5	2.7	NNE		25/03/2025	01:45	1.5		—	
24/03/2025	02:00	7.4	3.1	NNE		25/03/2025	02:00	1.4		—	
24/03/2025	02:15	7.4	2.7	NNE		25/03/2025	02:15	1.3		—	
24/03/2025	02:30	7.3	2.2	NNE		25/03/2025	02:30	1.3		—	
24/03/2025	02:45	7.2	2.7	NNE		25/03/2025	02:45	1.6		—	
24/03/2025	03:00	7.2	2.2	NNE		25/03/2025	03:00	2.1		—	
24/03/2025	03:15	7.1	2.2	NNE		25/03/2025	03:15	2.3		—	
24/03/2025	03:30	7.1	1.8	NNE		25/03/2025	03:30	2.9		—	
24/03/2025	03:45	7.1	1.8	NNE		25/03/2025	03:45	3.8		SSW	
24/03/2025	04:00	7	1.8	NNE		25/03/2025	04:00	4.4		SSW	
24/03/2025	04:15	6.9	2.7	NNE		25/03/2025	04:15	5		SSW	
24/03/2025	04:30	6.9	2.7	NNE		25/03/2025	04:30	5.6		SW	
24/03/2025	04:45	6.9	2.2	NNE		25/03/2025	04:45	6.1		WSW	
24/03/2025	05:00	6.8	2.2	NNE		25/03/2025	05:00	6.4	0.4	WSW	
24/03/2025	05:15	6.8	1.8	NNE		25/03/2025	05:15	6.3	0.9	WSW	
24/03/2025	05:30	6.8	2.2	NNE		25/03/2025	05:30	6.3	0.4	WSW	
24/03/2025	05:45	6.7	2.2	NNE		25/03/2025	05:45	6.3	0.4	WSW	
24/03/2025	06:00	6.7	1.3	NNE		25/03/2025	06:00	6.4	0.4	WSW	
24/03/2025	06:15	6.7	2.2	NNE		25/03/2025	06:15	6.3	0.9	W	
24/03/2025	06:30	6.7	2.7	NNE		25/03/2025	06:30	6.3	0.4	WSW	
24/03/2025	06:45	6.7	2.2	NNE		25/03/2025	06:45	6.3	0.9	WSW	
24/03/2025	07:00	6.7	2.2	NNE		25/03/2025	07:00	6.4	0.4	SW	
24/03/2025	07:15	6.7	2.2	NNE		25/03/2025	07:15	6.6	0.4	WSW	
24/03/2025	07:30	6.7	1.8	NNE		25/03/2025	07:30	6.9		SW	
24/03/2025	07:45	6.7	2.2	NNE		25/03/2025	07:45	6.9		WSW	
24/03/2025	08:00	6.8	2.2	NNE		25/03/2025	08:00	7.2		WSW	
24/03/2025	08:15	6.8	1.8	NNE		25/03/2025	08:15	7.6		SW	
24/03/2025	08:30	6.9	1.3	NNE		25/03/2025	08:30	7.9		WSW	
24/03/2025	08:45	6.9	1.3	NNE		25/03/2025	08:45	8.4	0.4	SW	
24/03/2025	09:00	7	1.8	NNE		25/03/2025	09:00	8.9		SW	
24/03/2025	09:15	7.1	2.2	NNE		25/03/2025	09:15	9.5	0.4	SW	
24/03/2025	09:30	7.1	2.2	NNE		25/03/2025	09:30	10.1	0.9	SW	
24/03/2025	09:45	7.2	1.8	NNE		25/03/2025	09:45	10.7	0.4	SW	
24/03/2025	10:00	7.2	1.8	NNE		25/03/2025	10:00	11.8	0.4	SSW	
24/03/2025	10:15	7.3	1.8	NNE		25/03/2025	10:15	12.9	0.4	SW	
24/03/2025	10:30	7.4	1.3	N							
24/03/2025	10:45	7.4	1.3	NNE							
24/03/2025	11:00	7.4	1.8	NNE							
24/03/2025	11:15	7.6	1.3	N							
24/03/2025	11:30	7.6	1.3	N							
24/03/2025	11:45	7.7	1.3	NNE							
24/03/2025	12:00	7.7	1.8	NNE							
24/03/2025	12:15	7.7	1.3	NNE							
24/03/2025	12:30	7.9	1.3	NNE							
24/03/2025	12:45	8	0.9	NNE							
24/03/2025	13:00	8.2	0.9	NNE							
24/03/2025	13:15	8.5	0.9	NNE							
24/03/2025	13:30	8.6	0.9	NNE							
24/03/2025	13:45	8.7	0.9	NNE							
24/03/2025	14:00	9.2	0.4	NE							
24/03/2025	14:15	9.5	0.4	NE							
24/03/2025	14:30	9.6	0.4	NE							
24/03/2025	14:45	10.4		WNW							
24/03/2025	15:00	10.7		NNE							
24/03/2025	15:15	11.5		W							
24/03/2025	15:30	11.4		NW							
24/03/2025	15:45	12.3		SW							
24/03/2025	16:00	11.8		NE							
24/03/2025	16:15	12.1	0.9	S							
24/03/2025	16:30	11.8	0.9	SSW							
24/03/2025	16:45	11.9	0.4	S							
24/03/2025	17:00	11.6	0.9	SSW							
24/03/2025	17:15	11.3	0.4	S							
24/03/2025	17:30	11	0.9	S							
24/03/2025	17:45	10.5	0.9	S							
24/03/2025	18:00	10.2	0.9	SSW							
24/03/2025	18:15	9.7	0.4	S							
24/03/2025	18:30	9.1		SSW							
24/03/2025	18:45	8.6		S							
24/03/2025	19:00	8.1		SSW							
24/03/2025	19:15	7.8	0.4	S							
24/03/2025	19:30	7.4		S							
24/03/2025	19:45	7		S							
24/03/2025	20:00	6.6		S							
24/03/2025	20:15	6.2		---							
24/03/2025	20:30	5.8		S							
24/03/2025	20:45	5.5		S							
24/03/2025	21:00	5.3		---							
24/03/2025	21:15	4.9		---							
24/03/2025	21:30	4.3		---							
24/03/2025	21:45	4.2		---							
24/03/2025	22:00	4.2		---							
24/03/2025	22:15	3.8		---							
24/03/2025	22:30	3.9		---							
24/03/2025	22:45	3.4		---							
24/03/2025	23:00	3.2		S							
24/03/2025	23:15	3.2		---							
24/03/2025	23:30	2.8		---							
24/03/2025	23:45	2.6		---							

Table C1: Meteorological Survey Results

APPENDIX D: SOURCE TERM NOISE DATA

APPENDIX A – MONITORING RESULTS



RESULTS OF BACKGROUND SOUND LEVEL MEASUREMENTS

Ref	Location Description	LAeq	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz	LCpk
		dB(A)	dB(A)										dB(C)
4	Pickers entrance to tipping hall	91	50.5	59.5	66.2	74.4	80.9	85.4	86.6	82.4	71.8	53.1	112
5	Door to main picking line	91	42.1	61.6	70.8	78.2	83.6	85.1	84.8	81.6	72.8	65.5	112
6	Inside main picking line at entrance	83	44.0	59.2	63.7	72.9	77.1	76.3	76.6	72.4	66.4	55.8	107
7	Main picking line sorting material into chutes	85	43.1	59.9	69.1	75.5	79.1	78.9	78.2	75.4	65.4	48.7	119
8	Entrance from picking to main tipping hall	88	44.7	59.7	68.1	74.9	81.2	83.3	82.3	78.1	67.7	51.1	107
9	Entrance from picking to smaller tipping hall	86	45.3	55.5	65.6	71.3	77.3	81.1	81.9	78.2	69.7	48.8	103
10	Door to smaller picking line	88	50.1	59.7	68.1	73.8	79.8	82.7	83.4	79.9	68.9	50.3	107
12	Inside smaller picking line	83	44.6	56.0	61.5	71.6	76.1	77.9	76.6	74.9	67.0	49.0	104
13	Banksman main location	75	-	-	-	-	-	-	-	-	-	-	96
14	Banksman entrance to main hall	80	35.4	49.1	60.2	68.8	73.9	76.0	73.8	68.7	59.4	44.1	99
15	Banksman entrance to smaller hall	79	-	-	-	-	-	-	-	-	-	-	104

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FIGURE D1: Noise Source Data- Replant Building



**PARNABY CYCLONES PLANT AT
PSH ENVIRONMENTAL, NORWICH**

NOISE SURVEY

Technical Report: R11181-1 Rev 0

Date: 20th June 2025

For: Derek Parnaby Cyclones International Ltd
Chilton Industrial Estate,
Chilton,
Nr. Ferryhill,
Co. Durham
DL17 0SH

FIGURE D2: Summary of Noise Source Data for Wet Processing Area

cont'

Noise Survey Results

- 2.5 Noise survey results are provided graphically in Figures 1 to 4 with corresponding data tables in octave bands.
- 2.6 It can be seen that the noise level within the plant varied between 73 and 86 dB L_{Aeq} . This would potentially place the plant within the hearing protection zones defined in the Control of Noise at Work Regulations 2006 and you may wish to inform future clients of this accordingly.

3.0 PLANT SOUND POWER LEVELS AND PROPAGATION CALCULATIONS

- 3.1 The noise survey data presented above has been used to estimate the plant sound power levels. Standard acoustic theory has been used taking into account the distance between the acoustic centre of each source and the survey location. The results are shown in Table 1 below. Measurement locations and calculations are provided in Figures 4 and 5.

Plant	Overall	Octave Band Frequency, Hz and Linear Sound Power Level, dB L_w								
	L_{WA} , dB	31	63	125	250	500	1k	2k	4k	8k
Belt Feeder	98	111	107	100	95	94	92	91	89	88
Main plant	105	112	110	104	104	100	99	100	96	90
Total	106	115	112	105	104	101	100	100	97	92

Table 1: Derived Plant Sound Power Levels

- 3.2 The sound power data shown in Table 1 above has been used to estimate the noise level from the plant at a range of distances. The calculation methodology of ISO 9613 [Reference 1] has been used assuming an ambient temperature of 10 degrees C, relative humidity of 70% and 50% hard ground/ 50% soft ground attenuation. The calculations also assume near worst-case light down wind propagation conditions and that there is no acoustic screening between the sources and receiver.

FIGURE D2: Summary of Noise Source Data for Wet Processing Area

Aggregate/ Sensoren- List				Revision				Rev00			
				Project Project n°				Fortis IBA 22-0995			
				Editor Status				M.Élie 18.01.2024			
				country of destination power supply				Great Britain 400V/50Hz			
Revision	Position	ACS-n°	Type	Amount	Installed Capacity (kW)	Aggregate type	Motor starter	Notes			
MILLING AND SORTING											
-	1.01.01	-	feeding bunker	AGB	1	-	-	-	-	-	-
-	1.01.01	-	continuous level indicator	Vega Vegapuls 31	1	-	S	-	-	PS31.XXXXXGMBH	-
-	1.01.02	-	chain conveyor	KGF	1	-	-	-	-	-	76
-	1.01.02	-	continuous level indicator	Vega Vegapuls 31	1	-	S	-	-	PS31.XXXXXGMBH	-
-	1.01.02	-	drive motor	SEW	1	1,50	M	-	-	VFD-MCC	-
-	1.01.02	-	thermo sensor	3x thermistor / PTC	1	-	S	-	-	frequency inverter in the switch cabinet (Reverse mode)	-
-	1.01.02	-	compact speed monitor	IFM DI6001 + connector E11252E11252	1	-	S	-	-	frequency inverter in the switch cabinet (Reverse mode)	-
-	1.01.02	-	drive motor dosing drum	SEW	1	7,50	M	-	-	VFD-MCC	-
-	1.01.02	-	compact speed monitor	IFM DI6001 + connector E11252E11252	1	-	S	-	-	frequency inverter in the switch cabinet (Reverse mode)	-
-	1.02	-	conveyor belt	FR900x	1	-	-	-	-	-	72
-	1.02	-	drive motor	SEW / Nord	1	5,50	M	-	-	FVNR	-
-	1.02	-	emergency stop rope switch		1	-	A	-	-	-	-
-	1.02	-	emergency stop rope switch		1	-	A	-	-	-	-
-	1.02	-	compact speed monitor	IFM DI6001 + connector E11252E11252	1	-	S	-	-	-	-
-	1.03	-	swinging screening machine	SS1000x3000	1	-	-	-	-	-	78
-	1.03	-	vibration motor	OM MVE 6500/1E-85AD - EE00050085ADJA0000	1	4,30	M	-	-	VFD-MCC	-
-	1.03	-	vibration motor	OM MVE 6500/1E-85AD - EE00050085ADJA0000	1	4,30	M	-	-	VFD-MCC	-
-	1.03	-	thermo sensor	3x thermistor / PTC	1	-	S	-	-	one single frequency inverter -11 kW - for both vibration motor in the cabinet on site	-
-	1.03	-	thermo sensor	3x thermistor / PTC	1	-	S	-	-	-	-
-	1.03	-	holding magnet	RS P50 holding magnet 3600 N 24V dc ø100mm	4	-	A	-	-	24VDC	-
-	1.03	-	button housing	Siemens 3SU183-0AA0-0AB1	1	-	A	-	-	lift - lower screen deck	-
-	1.03	-	pushbutton + holder	Siemens 3SU1100-0AB10-3BA0	1	-	A	-	-	mounted in housing for cylinder lifting	-
-	1.03	-	pushbutton + holder	Siemens 3SU1100-0AB10-3BA0	1	-	A	-	-	mounted in housing for cylinder lowering	-
-	1.03	-	blind cap	Siemens 3SU1100-0FA10-0AA0	1	-	A	-	-	mounted in housing	-
-	1.03	-	holder	Siemens 3SU1100-0AA10-0AA0	1	-	A	-	-	mounted in housing	-
-	1.03	-	vibration sensor	IFM IM5136 + Anschluss EVC810	1	-	S	-	-	monitoring oscillating motion and position screen deck	-
-	1.03	-	hydraulic system swinging screening machine	SS1000x3000	1	-	-	-	-	-	-
-	1.03	-	pressure sensor	HEDE11A1-1X/250KA1024/2V	1	-	S	-	-	Pressure monitoring	-
-	1.03	-	three-phase motor		1	1,50	M	-	-	FVNR	-
-	1.03	-	2/2 directional valve		1	-	A	-	-	de-energized with emergency manual override 24VDC	-
-	1.04	-	conveyor belt	FR900x	1	-	-	-	-	-	72
-	1.04	-	drive motor	SEW / Nord	1	2,20	M	-	-	FVNR	-
-	1.04	-	emergency stop rope switch		1	-	A	-	-	-	-
-	1.04	-	emergency stop rope switch		1	-	A	-	-	-	-
-	1.04	-	compact speed monitor	IFM DI6001 + connector E11252E11252	1	-	S	-	-	-	-
-	1.05	-	screw conveyor	TS450x	1	-	-	-	-	-	63
-	1.05	-	drive motor	GBN ... / SEW ...	1	3,00	M	-	-	FVNR	-
-	1.05	-	position switch	Eaton AT411-1M316	1	-	S	-	-	-	-
-	1.05	-	compact speed monitor	IFM DI6001 + connector E11252E11252	1	-	S	-	-	-	-

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-	1.06	-	elevator	EL500-280	1	-	-	-	-	-	89
-	1.06	-	drive motor	GBN SI322ABG-100AP4 / SEW FA67DRN120L4	1	3,00	M	-	-	FVNR	-
-	1.06	-	misalignment monitor	IFM ID502A	1	-	S	-	-	-	-
-	1.06	-	misalignment monitor	IFM ID502A	1	-	S	-	-	-	-
-	1.06	-	compact speed monitor	IFM DI6001 + connector E11252	1	-	S	-	-	-	-
-	1.06	-	compact speed monitor	IFM DI6002 + connector EVC 481 (5m cable length)	1	-	S	-	-	-	-
-	1.07.02	-	rotary valve	AS450x600	1	-	-	-	-	-	62
-	1.07.02	-	drive motor	GBN ... / SEW ...	1	1,50	M	-	-	FVNR	-
-	1.07.02	-	compact speed monitor	IFM DI6001 + connector E11252	1	-	S	-	-	-	-
-	1.07.03	-	rig-zap-sifter	ZZ3250x900-4	1	-	-	-	-	-	-
-	1.07.03	-	safety switch	PSEN a6.1 M12/8-0 (5m)PSEN a6.1 1 Unit, ID 541009	1	-	S	-	-	maintenance door left side	-
-	1.07.03	-	connector	POPE7 M12-8sf screw terminal, D540332	1	-	-	-	-	-	-
-	1.07.03	-	safety switch	PSEN a6.1 M12/8-0 (5m)PSEN a6.1 1 Unit, ID 541009	1	-	S	-	-	maintenance door right side	-
-	1.07.03	-	connector	POPE7 M12-8sf screw terminal, D540332	1	-	-	-	-	-	-
-	1.07.03	-	safety module for magnet switch	PLZ PNOZ a3 ID 751103, or similar	1	-	S	-	-	not included in scope or delivery Commented in this section without an order.	-
-	1.07.05	-	rotary valve	AS450x600	1	-	-	-	-	-	62
-	1.07.05	-	drive motor	GBN ... / SEW ...	1	1,50	M	-	-	FVNR	-
-	1.07.05	-	compact speed monitor	IFM DI6001 + connector E11252	1	-	S	-	-	-	-
-	1.07.06	-	cyclone	ZK85	1	-	-	-	-	-	-
-	1.07.06	-	safety switch	PSEN a6.1 M12/8-0 (5m)PSEN a6.1 1 Unit, ID 541009	1	-	S	-	-	maintenance door in the cycloneintersection	-
-	1.07.06	-	connector	POPE7 M12-8sf screw terminal, D540332	1	-	-	-	-	-	-
-	1.07.06	-	safety switch	PSEN a6.1 M12/8-0 (5m)PSEN a6.1 1 Unit, ID 541009	1	-	S	-	-	maintenance door in the cone	-
-	1.07.06	-	connector	POPE7 M12-8sf screw terminal, D540332	1	-	-	-	-	-	-
-	1.07.06	-	safety module for magnet switch	PLZ PNOZ a3 ID 751103, or similar	1	-	S	-	-	not included in scope or delivery Commented in this section without an order.	-
-	1.07.07	-	rotary valve	AS450x500	1	-	-	-	-	-	61
-	1.07.07	-	drive motor	GBN ... / SEW ...	1	1,50	M	-	-	FVNR	-
-	1.07.07	-	compact speed monitor	IFM DI6001 + connector E11252	1	-	S	-	-	-	-
-	1.07.08	-	radial fan	VTR...	1	-	-	-	-	-	80
-	1.07.08	-	three-phase motor	Siemens / Lammas /	1	18,50	M	-	-	VFD-MCC	-
-	1.07.08	-	thermo sensor	TF (PTC)	1	-	S	-	-	frequency inverter in the switch cabinet	-
-	1.08	-	screw conveyor	TS450x	1	-	-	-	-	-	63
-	1.08	-	drive motor	GBN ... / SEW ...	1	3,00	M	-	-	FVNR	-
-	1.08	-	position switch	Eaton AT411-1M316	1	-	S	-	-	-	-
-	1.08	-	compact speed monitor	IFM DI6001 + connector E11252E11252	1	-	S	-	-	-	-
-	1.09	-	elevator	EL500-280	1	-	-	-	-	-	69
-	1.09	-	drive motor	GBN SI322ABG-100AP4 / SEW FA67DRN120L4	1	3,00	M	-	-	FVNR	-
-	1.09	-	misalignment monitor	IFM ID502A	1	-	S	-	-	-	-
-	1.09	-	misalignment monitor	IFM ID502A	1	-	S	-	-	-	-
-	1.09	-	compact speed monitor	IFM DI6001 + connector E11252	1	-	S	-	-	-	-
-	1.09	-	compact speed monitor	IFM DI6002 + connector EVC 481 (5m cable length)	1	-	S	-	-	-	-
-	1.10	-	screw conveyor	TS450x	1	-	-	-	-	-	63
-	1.10	-	drive motor	GBN ... / SEW ...	1	3,00	M	-	-	FVNR	-
-	1.10	-	position switch	Eaton AT411-1M316	1	-	S	-	-	-	-
-	1.10	-	compact speed monitor	IFM DI6001 + connector E11252E11252	1	-	S	-	-	-	-
-	1.11	-	balling mill	PRALL-TEC PTV 100100 - THOR 1700 HD	1	-	-	-	-	see documentation supplier	94
-	1.11	-	electric motor drive	Lammas m=1450 mm-1 415 VD 50Hz	1	200,00	M	-	-	VFD-MCC	-
-	1.11	-	thermo sensor	3x PTC Thermistor / PTC	1	-	S	-	-	frequency inverter in the cabinet (by client) Käbelster für Abschaltung Baugr. 315	-
-	1.11	-	electric motor hydraulic unit	Lamier	1	1,50	M	-	-	FVNR	-
-	1.11	-	vibration motor feeder	Freidrich	1	2,70	M	-	-	VFD-MCC	-
-	1.11	-	vibration motor feeder	Freidrich	1	2,70	M	-	-	VFD-MCC	-
-	1.11	-	vibrating motor take-off chute	Freidrich	1	2,70	M	-	-	FVNR	-
-	1.11	-	vibrating motor take-off chute	Freidrich	1	2,70	M	-	-	FVNR	-
-	1.11	-	safety switch ADAM OSSD-INFO 8	ABB 2TLA200051R5700	1	-	S	-	-	ADAM & EVA	-
-	1.11	-	safety switch ADAM OSSD-INFO 8	ABB 2TLA200051R5700	1	-	S	-	-	ADAM & EVA	-
-	1.11	-	standard coding EVA Akkor	ABB 2TLA200046R0300	1	-	S	-	-	ADAM & EVA	-

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FIGURE D3: Summary of Noise Source Data for Dry Processing Area

APPENDIX 14

Environmental Risk Assessment

Bespoke Environmental Risk Assessment - A303 IBA Recovery Facility (updated September 2025).

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	Medium	Permitted waste types are limited (IBA and metals), non hazardous and have a low potential to produce bioaerosols, but the treatment activities have the potential to produce particulate matter so a medium magnitude risk is estimated. There is potential for exposure if anyone is living or working close to the site (apart from the operator and employees). There is potential for increased dust generation from permitted activities during prolonged dry periods e.g. summer months.	The nearest permanent residential receptor is located approximately 900 m to the north-west of the site. The site is not located within a AQMA. The site has a pumped dust suppression system and a tractor and bowser available to damp down the haul road and stockpiled wastes as necessary. Treatment activities will be undertaken undercover in two new buildings: replant and enhanced IBA recovery facility. There is a comprehensive programme of real-time TSP monitoring, and directional and deposited dust monitoring in place at the site. Daily site inspections include visual dust monitoring. Emission points to air from the Enhanced IBA recovery facility (EP1 and EP2) will be designed to comply with the BAT limit for dust emissions of 2-5mg/Nm3. For further details on dust mitigation and monitoring refer to the Dust Management Plan v5 - September 2025. The Dust Assessment (DustScan AQ, July 2025) concluded that: "this assessment shows that the proposed development can be operated in a manner unlikely to cause significantly adverse dust impacts in its vicinity. With reference to best practice guidance, the overall impact of the proposed development is considered to be not significant".	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	High	Low	Medium	As above. Local residents often sensitive to dust.	As above. Receptors absent.	Low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health.	Air transport then deposition	Low	Low	Low	Local residents often sensitive to litter, however permitted waste types have a negligible potential to generate litter.	As above. Appropriate measures include clearing litter arising from the activities from affected areas outside the site. Treatment activities will be undertaken undercover in two new buildings: replant and enhanced IBA recovery facility.	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	Medium	Road safety, local residents often sensitive to mud on roads.	Vehicles will not travel on unmade ground. All vehicles are required to use the wheel-bath prior to exiting the site. All vehicles using the site will be sheeted to prevent waste escaping the vehicle body. A road sweeper is employed on site.	Low

Local human population	Odour	Nuisance, loss of amenity.	Air transport then inhalation.	Medium	Medium	Low	Local residents often sensitive to odour, however permitted waste types have relatively low odour potential.	Odour monitoring is carried out routinely at the site and beyond and recorded on the site daily inspection sheet. IBA odour has been shown to disperse within around 500 m of the operation. Treatment activities will be undertaken undercover in two new buildings: replant and enhanced IBA recovery facility.	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	Medium	Local residents often sensitive to noise and vibration	Plant on-site is fitted with 'white noise' reversing beacons which minimise the intrusive nature of the safety measure. Daily check sheets include a requirement for site staff to qualitatively assess noise levels; if perceived to be causing nuisance, the action causing the emission will be halted. Noise monitoring is conducted by the HSQE Department to assess/monitor the noise levels onsite. Absence of residential receptors. It is concluded in the Noise Impact Assessment (NIA) (24 Acoustics, July 2025) that: "The assessment has indicated that the proposals will result in a low noise impact at Owls Lodge which may be audible from time to time (e.g. between significant lulls in traffic movements) but with no adverse effect. The noise impact at the housing and hotel at Drayton Park will be negligible at all times".	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Low	Low	Low	Permitted wastes unlikely to attract scavenging animals and birds and unlikely to become nesting / breeding sites due to careful stockpile management.	Emissions of substances not controlled by emission limits (including those from scavenging animals, scavenging birds and other pests) shall not cause pollution.	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	Low	Permitted waste types unlikely to attract pests.	As above	Very low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Low	Low	Permitted waste types are non hazardous so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard. The site is located in Flood Zone 1 (lowest risk).	Treatment activities will be undertaken undercover in two new buildings: replant and enhanced IBA recovery facility. IBA is stored and matured outside, but the site has an impermeable surface with a sealed drainage system. The drainage infrastructure of the storage areas has been designed to contain all possible run-off, including rainfall.	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Low	Low	Permitted waste types are non hazardous therefore only a low magnitude risk is estimated	The site is fenced and bunded. There is a CCTV system operated on site.	Low

Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Low	Low	Permitted waste types do not include sludges or liquids and are non hazardous, so only a low magnitude risk is estimated.	An emergency plan is located on-site which details the procedure in the event of a fire. Fire fighting equipment is in place to deal with any fires that may occur on site. Ash residues will be contained on-site and disposed of to a suitably permitted facility.	Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Low	Low	Low	As above.	As above. Permitted activities do not include the burning of waste.	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms.	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Low	Low	Low	Permitted waste types do not include sludges or liquids so a low magnitude risk is estimated. Surface water receptors are absent.	All liquids are provided with secondary containment including non-wastes such as fuels. IBA is stored and matured outside, but the site has an impermeable surface with a sealed drainage system. In the event of an accident or incident the Site Emergency Plan is adhered to.	Very low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer.	Low	Low	Low	Waste types are non-hazardous so harm is likely to be temporary and reversible. Surface water receptors are absent.	As above. Pollution protection measures are installed.	Very low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Low	Low	Low	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off. Surface water receptors are absent.	Receptors absent.	Very low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of	Transport through soil/groundwater then extraction at borehole.	Low	Low	Low	Permitted wastes unlikely to contaminate groundwater. The site has an impermeable surface and sealed drainage system.	Receptors absent. The site is not located with a groundwater source protection zone.	Very low

Protected sites - European sites and Sites of Special Scientific Interest (SSSI)	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Medium	Medium	Medium	Waste operations may cause harm to and deterioration of nature conservation sites. At their closest points, the River Test SSSI is located approximately 1.1km south of the Site and East Aston Common SSSI is located approximately 1.4 km northeast of the Site.	The sites impermeable surfacing and sealed drainage system ensure no emissions of run off on site. Stockpiles and surfaces will be dampened to mitigate against off site emissions of dust. Crushing and screening operations are undertaken undercover. No access is required to the SSSIs. There is no mechanism whereby emissions from the Site could impact the SSSIs as pathways are absent. It is concluded in the PEA / EcIA that: <i>"Potential impacts upon designated sites (the River Test SSSI, East Aston Common SSS) were identified resulting from surface water drainage. These potential impacts have been addressed via a number of surface water and drainage strategies as set out in the Hydrogeological Impact Assessment by AtkinsRealis, with anticipated impacts following the implementation of appropriate mitigation resulting in Negligible impacts on these sites".</i>	Low
Protected sites - Sites of Importance for Nature Conservation (SINC)	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Medium	Medium	Medium	Waste operations may cause harm to and deterioration of nature conservation sites. Six SINCs have been identified within 2 km of the site. The closest are: Longparish Cornfields SINC, a grassland supporting several notable species, 0.13 km north of the Site; and Drayton Down Area 1 SINC, an area of unimproved grassland 0.2 km east of the Site.	As above It is concluded in the PEA / EcIA that: <i>"Potential impacts upon designated sites (Drayton Down SINC) were identified resulting from surface water drainage. These potential impacts have been addressed via a number of surface water and drainage strategies as set out in the Hydrogeological Impact Assessment by AtkinsRealis, with anticipated impacts following the implementation of appropriate mitigation resulting in Negligible impacts on these sites.</i> <i>All other designated sites are separated from the proposed development area by tracts of arable farmland, woodland and road infrastructure and so adverse impacts upon these sites as a result of the works are not anticipated".</i>	Low

APPENDIX 15

Material Safety Data Sheets



SAFETY DATA SHEET 371/3

ATOMISED FERRO SILICON 15%

1. Product and Company Identification

Product name:	Atomised Ferro Silicon 15%
Supplier:	Westbrook Resources Ltd Westbrook House Wreakes Lane Dronfield Sheffield S18 1LY
REACH Registration No :	01-2119485286-28-0079
Emergency Telephone no.	Tel : +44 1246 292 292 Fax : +44 1246 292 293
Emergency E- mail	alloys@wbri.co.uk
Identified uses:	Industrial applications. Laboratory applications. Raw materials. Refractory applications.
UFI:	Not applicable, non-hazardous.

2. Hazards Identification

Classification of the product: The mixture is not considered as hazardous according to Regulation (EC) No 1272/2008.

Labelling:

Hazard pictograms: None

Signal word: Not applicable

Hazard statements: May cause irritation to eyes, skin and respiratory tract. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use only with adequate ventilation.

Route(s) of Entry: Ingestion, inhalation, skin and eye contact.

Other Hazards: This product does not contain any substances identified as having endocrine disruptive properties in accordance with the criteria set out in Regulation (EC) No 2017/2100.

3. Composition & Other Comments

Element	CAS No	EINECS /ELINCS	REACH NO.	Amount(%)
Silicon	7440-21-3	231-130-8	01-2119480401-47-0188	14-16%
Iron	7439-89-6	231-096-4	01-2119462838-24-0231	>80%
Manganese	7439-96-5	231-105-1		<0.8%
Chromium	7440-47-3	231-157-5	01-2119485652-31-0082	<0.6%
Copper	7440-50-8	231-159-6		<0.5%

Other components:

Atomised Ferro Silicon 15% may contain residual, non-hazardous elements below the reportable limits.

% not to be used as a specification

4. First Aid Measures

Routes of Entry & First Aid Procedures

Inhalation: If inhaled, remove from contaminated areas. Get medical attention if discomfort persists. Apply artificial respiration if not breathing.

Skin contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing and get medical attention if irritation develops or persists.

Eye contact: If in eyes, do not rub eyes, remove contact lenses, hold eyelids apart and flush continuously with running water. If irritation persists, continue flushing for 15 minutes, rinsing from time to time under eye lids. If discomfort continues, seek medical assistance.

Ingestion: Rinse mouth thoroughly if dust is ingested. If swallowed, do not induce vomiting. Get medical attention if any discomfort continues.

First aid Facilities: Eye wash should be provided

5. Fire Fighting Procedures

Flash Point:	Not available
Flammable Limits in Air - Lower:	Not available
Flammable Limits in Air - Upper:	Not available
Auto Ignition Temperature:	Not available
Extinguishing Media:	Extinguish using agent suitable for type of surrounding fire
Fire Fighting Equipment:	Use full fire fighting turnout gear (bunker gear). Any supplied air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Use any self-contained breathing apparatus with a full facepiece.
Fire and Explosion Hazards:	No acute hazard, product is not combustible.

6. Accidental Release Measures

Personal precautions:	Avoid inhalation of dust. Use suitable personal protective equipment if spillage is large and exposure is considered likely. Clear area of all unprotected personnel.
Environmental precautions:	Contact emergency services where appropriate. Do not allow spillage to enter drains or water courses. Contain spillage, then collect and dispose contaminated material as waste. Avoid generating dust.

7. Handling and Storage

Personal precautions:	If necessary, use suitable personal protective equipment to prevent inhalation and contact with skin, eyes and clothing. Do not eat, drink or smoke when handling this product. Always wash hands and face immediately after handling this product.
Handling:	Use only in well ventilated areas. Prevent formation of dust. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water. Any unavoidable deposit of dust must be regularly removed.
Storage information:	Store indoors in a dry, cool location, in well-sealed receptacles. Protect from humidity and water. Store away from oxidizing agents. Store away from foodstuffs. Do not store together with acids.

8. Exposure controls/ Personal Protection

Exposure limits:	No biological limit allocated
Exposure Controls	
General:	Adhere to the usual precautionary measures when handling chemicals. . If no exposure limits are stated, follow the recommended exposure limit of 10mg/m3 for total nuisance dust. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Immediately remove all soiled and contaminated clothing. Do not inhale dust / smoke / mist. Avoid contact with the eyes. Avoid close or long term contact with the skin.
Respiratory Protection:	Respiratory protection not required under normal conditions of use. For spills, respiratory protection is advisable. Use suitable respiratory protective device when high concentrations are present.
Eye Protection:	Wear safety glasses.

Hand Protection: Wear protective gloves.

Body Protection: Not required under normal conditions of use. Protection may be required for spills.

9. Physical and Chemical Properties

Appearance: Powder.
 Physical state: Powder.
 Form: Powder form.
 Colour: Silvery-metallic surface.
 Odour: Odourless.
 Odour threshold: Not applicable.
 pH: Not applicable.

Boiling point: Not available.
 Flash point: Not available.
 Flammability: Not available.
 Vapour pressure: Not applicable.
 Relative density: 6.7g/cm³
 Solubility (water): Insoluble.
 Partition coefficient: Not applicable.
 Viscosity: Not applicable.
 Vapour density: Not applicable.
 Evaporation rate: Not applicable.
 Melting point: 1300-1450°C
 Freezing point: Not applicable.
 Auto-ignition temp: Not available.
 Decomposition temp: Not applicable.
 VOC: 0%

Bulk density: Not applicable.
 Percent volatile: Not applicable.
 Presence of nanoforms: None

10. Stability and Reactivity

Reactivity: Information not available

Chemical stability: Stable under recommended conditions of storage

Thermal Decomposition/
 Conditions to avoid: No decomposition if used according to specifications.

Possibility of Hazardous
 Reactions: Reacts with strong acids and alkali. Reacts with strong oxidising agents.

Conditions to avoid: Store away from oxidising agents. Moisture.

Incompatible Materials: No further relevant information available.

Hazardous Decomposition:
 Products: Possible in traces.



11. Toxicological Information

Health hazard Summary:	Low toxicity. This product may present a hazard with direct eye or prolonged skin contact or with ingestion.
Eye contact:	Slight irritant effect on eyes. Contact may result in irritation, lacrimation, pain and redness.
Inhalation:	Inhalation may cause irritation to the respiratory system.
Ingestion:	Low toxicity. Ingestion may result in gastrointestinal irritation, vomiting, headaches, and diarrhoea.
Skin contact:	Slight irritant effect on skin and mucous membranes.
Additional Toxicological Information:	The product does not have any harmful effects to our experience and the information provided to us when used and handled according to specifications. The substance is not subject to classification according to the latest version of the EU lists.
Repeated dose toxicity:	Repeated exposure may result in skin sensitivity.
Endocrine disrupting properties:	This product does not contain any substances identified as having endocrine disruptive properties in accordance with the criteria set out in Regulation (EC) No 2017/2100.

12. Ecological Information

Toxicity:	Not ecotoxic
Persistence and degradability:	The product is inorganic and not subject to biodegradation.
Bioaccumulative potential:	N/A
Mobility in soil:	The product is insoluble to water. The product is not absorbed on to soil or sediments.
Environment:	Ferro Silicon is not found in the metallic form in nature.

13. Disposal Considerations

Dispose of in accordance with local and national regulations. Disposal of waste should be undertaken by a licensed contractor.

14. Transport Information

There are no special precautions required for the transportation or conveyance of this product. It is not regulated as dangerous goods.

15. Regulatory Information

The product does not need to be labelled in accordance with EC directives or respective national laws.

16. Other Information

Additional information:	In some cases, health and safety risks can occur as a result of the build-up of airborne dust particles. This risk can be reduced/avoided with the use of good industrial practices. Health risks, as a result of inhalation of dust particles, vary because of particle concentration, exposure length, number of exposures and type of particles inhaled. Sections 2, 4, 6, 7, and 8 of the SDS should be read to understand these potential
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risks. Personal protective equipment should be worn, and procedures with regards to storage and handling should be adhered to, to maintain a safe workplace.

In rare cases, combustible dusts could represent a potential explosion hazard when airborne. This hazard often relates to organic dust such as foodstuffs and coal, but may also result with mineral products. Although most of our products would be considered non-combustible, the overall airborne environment should be considered when analysing the requirement for mitigation from the potential hazard. Seek advice from approved experts when necessary in order to determine any possible hazard.

Please read the SDS for specific information with regards to these hazards, and contact us if you have any further questions. We appreciate your continued business.

16. Relevant legislation

- Regulation (EC) No 1272/2008
- Regulation (EC) No 1907/2006 Annex II
- Regulation (EC) No 2017/2100
- Regulation (EC) No 2020/878 of Annex II of REACH
- Directive 98/24/EC
- Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU and 2019/1831/EU
- Directive 2004/37/EC
- Regulation (EU) No 2016/425
- Directive 2008/68/EC
- UK Statutory Instrument 2021/904

Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this product has been performed as a cumulative assessment in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

Disclaimer

This Safety Data Sheet is specifically designed to comply with the requirements of the EU Regulation "REACH" – Registration, Evaluation and Authorisation of Chemicals (EC No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 as amended by Commission Regulation (EU) 2020/878) and the corresponding country law and may not comply with the requirements of any other regulations for safe product handling.

The information contained herein was obtained from sources deemed to be reliable. Westbrook Resources Limited, or any other member of the group headed by Westbrook Holdings Limited cannot accept responsibility for loss, damage or injury arising from the use of or reliance upon this information. Final determination of the suitability of the material is the sole responsibility of user.

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : SUPERFLOC A-130

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended restrictions on use : For use in industrial installations or professional treatment only.

1.3 Details of the supplier of the safety data sheet

Company : Kemira Oyj
0109823-0
Energiakatu 4
00180 HELSINKI

Telephone : +358108611

Telefax : +358108621119

E-mail address of person responsible for the SDS : ProductSafety.FI.Helsinki@kemira.com

1.4 Emergency telephone number

Carechem 24 International: +44 (0) 1235 239 670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Not a hazardous substance or mixture.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Avoid spillage on floor as the product can become very slippery when wet.

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SECTION 3: Composition/information on ingredients**3.2 Mixtures**

Chemical nature : Anionic water soluble polyacrylamide

Components

Remarks : No hazardous ingredients

SECTION 4: First aid measures**4.1 Description of first aid measures**General advice : No hazards which require special first aid measures.
Show this safety data sheet to the doctor in attendance.

Protection of first-aiders : No special precautions are necessary for first aid responders.

If inhaled : Remove to fresh air.
If there is difficulty in breathing, medical advice is required.

In case of skin contact : Wash off with soap and water.

In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If eye irritation persists, consult a specialist.If swallowed : No hazards which require special first aid measures.
Rinse mouth with water.
Call a physician if symptoms occur.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.**4.2 Most important symptoms and effects, both acute and delayed**

Symptoms : No symptoms known or expected.

Risks : No hazards which require special first aid measures.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Symptomatic treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Product is compatible with standard fire-fighting agents.

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The product itself does not burn.

Unsuitable extinguishing media : High volume water jet
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : None known.
The product itself does not burn.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Suppress (knock down) gases/vapours/mists with a water spray jet.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Further information : Forms slippery/greasy layers with water.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : For personal protection see section 8.
Material can create slippery conditions.

6.2 Environmental precautions

Environmental precautions : Do not allow uncontrolled discharge of product into the environment.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Product becomes slippery when it is wet.
Take up mechanically and collect into suitable containers for disposal.
After cleaning, flush away traces with water.

6.4 Reference to other sections

See Sections 7 and 8 for proper handling and protective measures and Section 13 for proper waste disposal measures.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

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Technical measures	:	Install appropriate equipment and wear appropriate personal protective equipment (see "8. Exposure control/personal protection").
Advice on safe handling	:	If potential for exposure exists refer to Section 8 for specific personal protective equipment. Provide for appropriate exhaust ventilation and dust collection at machinery. Minimize dust generation and accumulation.
Advice on protection against fire and explosion	:	No special precautions required.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking, or smoking.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	The product is hygroscopic. Protect from moisture.
Further information on storage conditions	:	Aqueous solutions or powders produce extremely slippery surfaces.
Advice on common storage	:	No special restrictions on storage with other products.
Storage period	:	24 Months
Recommended storage temperature	:	< 40 °C
Dampness	:	Keep in a dry place.
Further information on storage conditions	:	Recommended storage temperature for quality reasons. The product is chemically stable. No decomposition if stored normally.
Packaging material	:	Suitable material: Polypropylene, Polyethylene, PVC, polyester with fibreglass reinforcement, stainless steel (AISI 304), acid-resistant steel (AISI 316) Unsuitable material: To avoid product degradation and equipment corrosion, do not use iron, copper or aluminium containers or equipment.

7.3 Specific end use(s)

Specific use(s)	:	For professional and industrial installation and use only.
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SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

8.2 Exposure controls**Engineering measures**

Maintain air concentrations below occupational exposure standards.
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

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Eye protection	:	Safety glasses with side-shields conforming to EN166
Hand protection	:	
Material	:	Nitrile rubber
Remarks	:	Protective gloves complying with EN 374. Permeability tests are not available for this product. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Skin and body protection	:	Long sleeved clothing
Respiratory protection	:	Dust safety masks are recommended when the dust concentration is more than 10 mg/m ³ . Half mask with a particle filter P2 (EN 143)
Protective measures	:	Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and immediately after handling the product. Avoid dust formation. Do not breathe dust. Use personal protective equipment. Eye wash bottle or emergency eye-wash fountain must be found in the work place.

Environmental exposure controls

Water	:	Do not discharge large quantities of concentrated spills or residues into surface water or sanitary sewer system. Retain and dispose of contaminated wash water.
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SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	:	powder
Colour	:	white
Odour	:	odourless
Odour Threshold	:	Not applicable
pH	:	6 - 8 (25 °C) Concentration: 0,5 %
Melting point/freezing point	:	Decomposes before melting.
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Not classified as a flammability hazard, Not expected to form explosive dust-air mixtures.

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Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	not determined
Density	:	not determined
Bulk density	:	650 - 850 kg/m ³
Solubility(ies)	:	
Water solubility	:	> 5 g/l Limited by viscosity. (25 °C)
Partition coefficient: n-octanol/water	:	log Pow: << 4 Method: OECD Test Guideline 107 Information refers to the main component.
Auto-ignition temperature	:	does not ignite
Decomposition temperature	:	> 150 °C Method: ISO 11358 No decomposition if stored and applied as directed. Hazardous decomposition products formed under fire conditions.
Viscosity	:	
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

9.2 Other information

Surface tension	:	Surface activity is not to be expected.
Minimum explosible dust concentration	:	Not applicable
Particle size	:	approximately 150 - 1 700 µm

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

The product is chemically stable.

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Hazardous reactions : None reasonably foreseeable.

10.4 Conditions to avoidConditions to avoid : Avoid contact with alkaline materials which will degrade the polymer.
Avoid moisture.**10.5 Incompatible materials**

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition productsCarbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.
Ammonia**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity****Product:**Acute oral toxicity : LD50 Oral: > 5 000 mg/kg
Method: OECD Test Guideline 401
Remarks: Read-across (Analogy)Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 hAcute dermal toxicity : LD50 Dermal (Albino rabbit): > 10 000 mg/kg
Method: No guideline followedAcute toxicity (other routes of administration) :
Remarks: This information is not available.
The product contains no substances known to be hazardous to health in concentrations which need to be taken into account.**Skin corrosion/irritation****Product:**Assessment : No skin irritation
Test substance : Read-across (Analogy)
Remarks : Literary reference**Serious eye damage/eye irritation****Product:**Species : Rabbit
Assessment : No eye irritation

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Method	:	Draize Test
Test substance	:	Read-across (Analogy)
Remarks	:	Dust contact with the eyes can lead to mechanical irritation.

Respiratory or skin sensitisation

Product:

Test Type	:	Buehler Test
Exposure routes	:	Dermal
Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.
Method	:	OECD Test Guideline 406
Result	:	negative
Test substance	:	Read-across (Analogy)
Exposure routes	:	Inhalation
Assessment	:	Does not cause respiratory sensitisation.
Method	:	Calculation method

Germ cell mutagenicity

Product:

Genotoxicity in vivo	:	Remarks: Based on available data, the classification criteria are not met.
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Carcinogenicity

Product:

Remarks	:	Based on available data, the classification criteria are not met.
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Reproductive toxicity

Product:

Effects on fertility	:	Remarks: Based on available data, the classification criteria are not met.
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STOT - single exposure

Product:

Remarks	:	Based on available data, the classification criteria are not met.
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STOT - repeated exposure

Product:

Remarks	:	Based on available data, the classification criteria are not met.
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Repeated dose toxicity

Product:

Remarks	:	No data available
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No aspiration toxicity classification

SECTION 12: Ecological information**12.1 Toxicity****Product:**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: Acute toxicity
Method: OECD Test Guideline 203
Remarks: Read-across (Analogy)
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: Immobilization
Test substance: Read-across (Analogy)
Method: OECD Test Guideline 202
- EC50 (Acartia tonsa (copepod)): 342 mg/l
Exposure time: 48 h
Test Type: Immobilization
Test substance: Read-across (Analogy)
Method: PARCOM SOP 106
- Toxicity to algae/aquatic plants : IC50 (Green algae (Selenastrum capricornutum)): > 100 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
- IC50 (Skeletonema costatum (diatom)): 2 276 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: PARCOM SOP 104
- Sediment toxicity : EC50: 1415 mg/l
Exposure duration: 10 d
Species: Corophium volutator (amphipoda)
Method: PARCOM SOP 102
Remarks: Read-across (Analogy)

12.2 Persistence and degradability**Product:**

- Biodegradability : Test Type: Closed Bottle test
Biodegradation: < 10 %
Exposure time: 28 d

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Method: OECD Test Guideline 306
Test substance: Read-across (Analogy)
Remarks: The polymeric ingredient is not readily biodegradable.

12.3 Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects**Product:**

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information : Information given is based on data on the components and the ecotoxicology of similar products.
This product has no known ecotoxicological effects.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Product : Recycling, recovery and reuse of materials is recommended if permitted by regulations.
If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Must be disposed of in accordance with local and national regulations.

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SECTION 14: Transport information**14.1 UN number**

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : None known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Relevant EU provisions transposed through retained EU law

GB Export and import of hazardous chemicals - Prior : Not applicable
Informed Consent (PIC) RegulationSeveso III Directive (2012/18/EU) implemented : Not applicable
by Control of Major Accident Hazards Regulations 2015 (COMAH)Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial
emissions (integrated pollution prevention and control)
Not applicable**Other regulations:**According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations
SI 2019/758**The components of this product are reported in the following inventories:**TSCA : All components of this product are included in the United
States TSCA Chemical Inventory with Active Status or are not
required to be listed on the United States TSCA Chemical
Inventory.DSL : All components of this product are included in the Canada
Domestic Substance List (DSL) or are not required to be listed
on the Canada Domestic Substance List (DSL).

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EINECS	:	All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.
AIIC	:	All components of this product are included in the Australian Inventory of Industrial Chemicals (AIIC) or are not required to be listed on the Australian Inventory of Industrial Chemicals (AIIC).
IECSC	:	All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.
ENCS	:	All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.
KECI	:	All components of this product are included in the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.
PICCS	:	All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.
NZIoC	:	All components of this product are included in the New Zealand inventory (NZIoC) or are not required to be listed on the New Zealand inventory(NZIoC).
TCSI	:	All components of this product are included on the Taiwan Toxic Chemical Substances Control Act Inventory.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this mixture.

SECTION 16: Other information**Full text of other abbreviations**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - Interna-

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tional Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice : Read the safety data sheet before using the product.

Other information : Relevant changes have been marked with vertical lines.

Sources of key data used to compile the Safety Data Sheet : Regulations, databases, literature, own tests.

Classification of the mixture:**Classification procedure:**

Bridging principle "Substantially similar mixtures".

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Print Date:04.09.2025**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**Trade name : **SUPERFLOC C-577****1.2 Relevant identified uses of the substance or mixture and uses advised against**

Recommended restrictions on use : For use in industrial installations or professional treatment only.

1.3 Details of the supplier of the safety data sheetCompany : Kemira Oyj
0109823-0
Energiakatu 4
00180 HELSINKI

Telephone : +358108611

Telefax : +358108621119

E-mail address of person responsible for the SDS : ProductSafety.FI.Helsinki@kemira.com

1.4 Emergency telephone number

Carechem 24 International: +44 (0) 1235 239 670

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Long-term (chronic) aquatic hazard, Category 3 H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.**Disposal:**
P501 Dispose of contents/container as special waste in compliance with local and national regulations.

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This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Contaminated surfaces will be extremely slippery.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

Chemical nature : Aqueous solution of Polymeric Quaternary Amine.

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine	42751-79-1	Aquatic Chronic 3; H412	>= 40 - <= 60

For explanation of abbreviations see section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- General advice : No hazards which require special first aid measures.
Show this safety data sheet to the doctor in attendance.
- Protection of first-aiders : No special precautions are necessary for first aid responders.
- If inhaled : Remove to fresh air.
If there is difficulty in breathing, medical advice is required.
- In case of skin contact : Wash off with soap and water.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If eye irritation persists, consult a specialist.
- If swallowed : No hazards which require special first aid measures.
Rinse mouth with water.
Call a physician if symptoms occur.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No symptoms known or expected.
- Risks : No hazards which require special first aid measures.

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Treatment : Symptomatic treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Product is compatible with standard fire-fighting agents.

Unsuitable extinguishing media : High volume water jet
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Contaminated surfaces will be extremely slippery.
Risk of receptacle bursting.
Cool containers/tanks with water spray.
Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon oxides (COx)
Nitrogen oxides (NOx)
Hydrogen chloride
Halogenated compounds
Ammonia

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Suppress (knock down) gases/vapours/mists with a water spray jet.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Further information : Forms slippery/greasy layers with water.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Refer to protective measures listed in sections 7 and 8.
Avoid contact with eyes.
Use non-slip safety shoes in areas where spills or leaks can occur.

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Contaminated surfaces will be extremely slippery.
Spilling onto the container's outside will make container slippery.

6.2 Environmental precautions

Environmental precautions : Do not allow uncontrolled discharge of product into the environment.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material.
Take up mechanically and collect into suitable containers for disposal.
Flush with water.
Clean contaminated surface thoroughly.
Product becomes slippery when it is wet.
Dispose of rinse water in accordance with local and national regulations.

6.4 Reference to other sections

See Sections 7 and 8 for proper handling and protective measures and Section 13 for proper waste disposal measures.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Technical measures : Install appropriate equipment and wear appropriate personal protective equipment (see "8. Exposure control/personal protection").

Advice on safe handling : If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Avoid spillage on floor as the product can become very slippery when wet.
Ensure adequate ventilation.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking, or smoking.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : To maintain product quality, do not store in heat or direct sunlight. Store at room temperature in the original container.

Further information on storage conditions : Avoid spillage on floor as the product can become very slippery when wet.

Recommended storage temperature : 5 - 30 °C

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- Further information on storage conditions : Recommended storage temperature for quality reasons.
The product is chemically stable.
No decomposition if stored normally.
- Packaging material : Suitable material: Stainless steel, plastic with fiberglass reinforcement, epoxy-lined vessels
Unsuitable material: To avoid product degradation and equipment corrosion, do not use iron, copper or aluminium containers or equipment.

7.3 Specific end use(s)

- Specific use(s) : For professional and industrial installation and use only.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

8.2 Exposure controls**Engineering measures**

Ensure adequate ventilation.

Personal protective equipment

- Eye protection : Safety glasses with side-shields conforming to EN166
- Hand protection :
Material : Nitrile rubber
- Remarks : Protective gloves complying with EN 374. Permeability tests are not available for this product. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Skin and body protection : Long sleeved clothing
- Respiratory protection : No personal respiratory protective equipment normally required.
Wear respiratory protection when its use is identified for certain contributing scenario.
Respirator with combination filter for vapour/particulate (EN 141)
- Protective measures : Handle in accordance with good industrial hygiene and safety practice.
Wash hands and face before breaks and immediately after handling the product.
Use personal protective equipment.
Eye wash bottle or emergency eye-wash fountain must be found in the work place.

Environmental exposure controls

- Water : Do not discharge large quantities of concentrated spills or residues into surface water or sanitary sewer system.

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Retain and dispose of contaminated wash water.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	: viscous
Colour	: colourless, to, amber
Odour	: amine-like
Odour Threshold	: not determined
pH	: 4 - 7 (25 °C) Concentration: 100 %
Melting point/range	: -18 °C
Boiling point/boiling range	: ca. 100 °C
Flash point	: > 100 °C Method: closed cup No flash point up to the boiling point > 100 °C., The product is not flammable.
Evaporation rate	: similar to water
Upper explosion limit / Upper flammability limit	: Not applicable
Lower explosion limit / Lower flammability limit	: Not applicable
Vapour pressure	: 2,3 kPa (20 °C) (liquid component is water)
Relative vapour density	: similar to water
Relative density	: No data available
Density	: 1,100 - 1,200 g/cm ³ (25 °C)
Solubility(ies)	
Water solubility	: completely miscible
Solubility in other solvents	: insoluble Solvent: Fat solubility
Partition coefficient: n-octanol/water	: log Pow: < 3 Method: estimated
Auto-ignition temperature	: Not applicable Aqueous solution
Decomposition temperature	: > 150 °C
Viscosity	
Viscosity, dynamic	: 500 - 1 000 mPa.s (25 °C)

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Viscosity, kinematic : No data available

Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information

Flammability (liquids) : Not classified as a flammability hazard

Surface tension : Surface activity is not to be expected.

SECTION 10: Stability and reactivity**10.1 Reactivity**

Stable under recommended storage conditions.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : None reasonably foreseeable.

10.4 Conditions to avoidConditions to avoid : Avoid contact with alkaline materials which will degrade the polymer.
Do not freeze.**10.5 Incompatible materials**Materials to avoid : Strong oxidizing agents
Iron
Copper
Aluminium**10.6 Hazardous decomposition products**Carbon oxides (CO_x)
Nitrogen oxides (NO_x)
Halogenated compounds
Ammonia**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity****Product:**Acute oral toxicity : Acute toxicity estimate: > 2 000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Method: Expert judgement

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Assessment: The substance or mixture is not classified.

Acute dermal toxicity : Acute toxicity estimate: > 2 000 mg/kg
Method: Calculation method

Components:**1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine:**

Acute oral toxicity : LD50 (Rat): 2 000 mg/kg
Method: OECD Test Guideline 423
Test substance: Read-across (Analogy)

Acute dermal toxicity : LD50 (Rat): > 2 000 mg/kg
Method: OECD Test Guideline 402
Test substance: Read-across (Analogy)

Skin corrosion/irritation**Product:**

Assessment : No skin irritation
Method : Calculation method

Components:**1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine:**

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404

Serious eye damage/eye irritation**Product:**

Assessment : No eye irritation
Method : Calculation method

Components:**1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine:**

Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405

Respiratory or skin sensitisation**Product:**

Assessment : Based on available data, the classification criteria are not met.

Germ cell mutagenicity**Product:**

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Germ cell mutagenicity- Assessment : Based on available data, the classification criteria are not met.

Components:**1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine:**

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Method: OECD Test Guideline 471
Result: positive

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity**Product:**

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

Reproductive toxicity**Product:**

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

Components:**1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine:**

Effects on fertility : Result: No effects on fertility and early embryonic development were detected.
Remarks: Information taken from reference works and the literature.

STOT - single exposure**Product:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure**Product:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

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Assessment : No adverse effects
Remarks : Read-across (Analogy)

Components:**1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine:**

Species : Rat
NOAEL : 1 000 mg/kg
Exposure time : 28 d
Method : OECD Test Guideline 407
Test substance : Read-across (Analogy)

Species : Rat
NOAEL : 1 000 mg/kg
Exposure time : 90 d
Test substance : Read-across (Analogy)
Remarks : Literary reference

Aspiration toxicity**Product:**

No aspiration toxicity classification

Further information**Product:**

Remarks : Information given is based on data on the components and the toxicology of similar products.
Information taken from reference works and the literature.

SECTION 12: Ecological information**12.1 Toxicity****Product:****Ecotoxicology Assessment**

Acute aquatic toxicity : Harmful to aquatic life.
Remarks: Read-across (Analogy)

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.
Remarks: Read-across (Analogy)

Components:**1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine:**

Toxicity to fish : LC50 (Branchydanio rerio (zebra fish)): 10 - 100 mg/l
Exposure time: 96 h

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	Test substance: 50%
	Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 10 - 100 mg/l Exposure time: 48 h Test substance: 50% Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	: IC50 (Pseudokirchneriella subcapitata (green algae)): 10 - 100 mg/l Exposure time: 72 h Test substance: 50% Method: OECD Test Guideline 201
Toxicity to microorganisms	: Remarks: No data available

12.2 Persistence and degradability

Product:

Biodegradability	: Result: Not rapidly biodegradable Test substance: Read-across (Analogy)
Stability in water	: Remarks: Does not hydrolyse.

Components:

1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine:

Biodegradability	: Test Type: Modified Sturm Test Result: Not rapidly biodegradable Biodegradation: 0 % Exposure time: 28 d Method: OECD Test Guideline 301B
------------------	---

12.3 Bioaccumulative potential

Product:

Bioaccumulation	: Remarks: Bioaccumulation is unlikely.
-----------------	---

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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12.6 Other adverse effects**Product:**

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information : Information given is based on data on the components and the ecotoxicology of similar products.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

Toxicity on aquatic organisms is rapidly and significantly mitigated by the presence of dissolved organic carbon.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Classified as hazardous waste.
Recycling, recovery and reuse of materials is recommended if permitted by regulations.
If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Must be disposed of in accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : None known.

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Not applicable for product as supplied.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Relevant EU provisions transposed through retained EU law

GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable

Seveso III Directive (2012/18/EU) implemented by Control of Major Accident Hazards Regulations 2015 (COMAH) Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Not applicable**Other regulations:****The components of this product are reported in the following inventories:**

TSCA : All components of this product are included in the United States TSCA Chemical Inventory with Active Status or are not required to be listed on the United States TSCA Chemical Inventory.

DSL : All components of this product are included in the Canada Domestic Substance List (DSL) or are not required to be listed on the Canada Domestic Substance List (DSL).

EINECS : All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

AIIC : All components of this product are included in the Australian Inventory of Industrial Chemicals (AIIC) or are not required to be listed on the Australian Inventory of Industrial Chemicals (AIIC).

IECSC : All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

ENCS : All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.

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KECI	: All components of this product are included in the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.
PICCS	: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.
NZIoC	: All components of this product are included in the New Zealand inventory (NZIoC) or are not required to be listed on the New Zealand inventory (NZIoC).
TCSI	: All components of this product are included on the Taiwan Toxic Chemical Substances Control Act Inventory.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this mixture.

SECTION 16: Other information**Full text of H-Statements**

H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous

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Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice : Read the safety data sheet before using the product.

Other information : Relevant changes have been marked with vertical lines.

Sources of key data used to compile the Safety Data Sheet : Regulations, databases, literature, own tests.

Classification of the mixture:

Aquatic Chronic 3 H412

Classification procedure:

Bridging principle "Substantially similar mixtures".

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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APPENDIX 16

Flood Risk Assessment



FORTIS A303 ENVIROPARK

Notice

This document and its contents have been prepared and are intended solely as information for Fortis IBA and use in relation to planning.

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This document has 32 pages including the cover.

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Document reference: 100094734-ATR-XX-XX-RP-C-001

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1.0	For planning submisison	LMc	GSS	AS	TW	11/08/2025

Client signoff

Client	Fortis IBA
Project	FORTIS A303 ENVIROPARK
Job number	100094734.009
Client signature/date	



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1. Introduction

AtkinsRéalis have been commissioned by Fortis IBA Ltd (Fortis) to prepare a Flood Risk Assessment (FRA) and Drainage Strategy to support a planning application for a proposed expansion of the working area of their A303 Enviropark site on Drayton Road in Barton Stacey, Hampshire.

This FRA and Drainage Strategy has been prepared in accordance with, but not limited to, National Planning Policy Framework (NPPF), associated Planning Practice Guidance and National Standards for Sustainable Drainage Systems (SuDS).

This report, in accordance with clause 172 of the NPPF, applies a sequential, risk-based approach should be applied to the location of development, taking into account all sources of flood risk and the current and future impacts of climate change, so as to avoid, where possible, flood risk to people and property.

1.1 Aims

The purpose of demonstrating the impact of flood risk to the proposed development and outline a drainage strategy that mitigates any risk of flooding through Sustainable Drainage Systems (SuDS).

1.2 Assumptions & Limitations

The findings, opinions and recommendations presented in this report are based on information obtained from a variety of third-party sources as detailed within this report. AtkinsRéalis has not independently verified third-party information and for the purposes of this report has assumed that such information is accurate and complete. Therefore, whilst this report and the opinions contained herein are accurate to the best of AtkinsRéalis' knowledge and belief, AtkinsRéalis cannot and does not guarantee the completeness, reliability or accuracy of the descriptions or conclusions based on supplied third-party information.

No responsibility can be accepted by AtkinsRéalis for the inaccuracies in the data supplied by any other party.

The opinions given in this report are relevant only for the purpose for which the report was commissioned.



2. Development Site & Location

2.1 Location

The site is located in Hampshire, national grid reference 444200, 142820. It is approximately 1.8 kilometres (km) north of Barton Stacey and 8 km east of Andover. Regionally, the site is located in the catchment of the rivers Test and Dever, on land sloping gently to the south-southwest.

The site location and extents of the development boundary are shown in Figure 2-1.

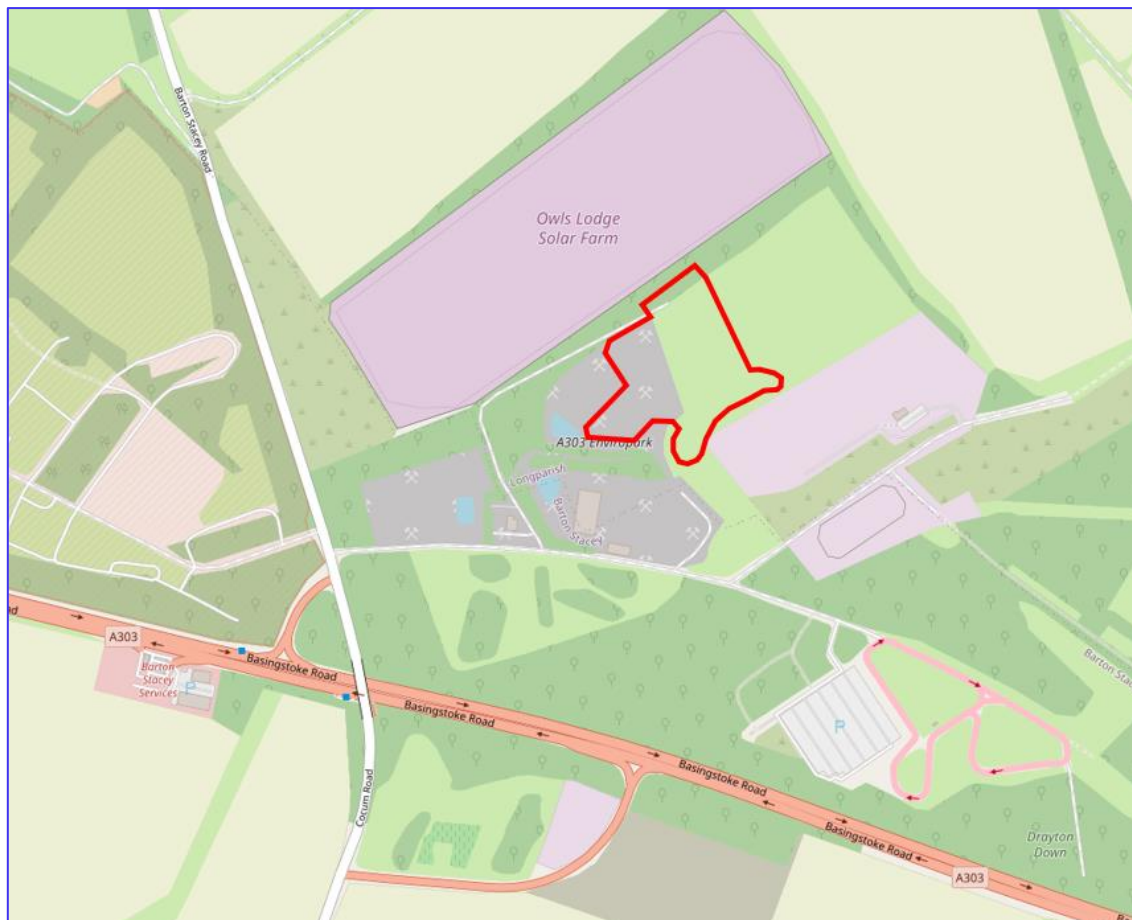


Figure 2-1 - Site Location Plan

2.2 Usage

The site is currently used as an incinerator bottom ash (IBA) processing facility of which the compound comprises predominantly hardstanding. The main processing plant, comprising a series of conveyors, screens, crushers and metal separators, is at the centre of the site. To the north is an area designated for stockpiling unprocessed IBA, to aid conditioning prior to processing. To the west is a lagoon where runoff from the compound surfaces is conveyed. The main site has been active since 2013 and operates under an environmental permit ref: EPR/FB3805GN.

Figure 2-2 shows a plan view of the existing main site compound.



Figure 2-2 - Aerial Photo of Existing Site

2.3 Topography & Levels

The topography of the existing main site slopes gently from north-east to south-west. The elevation of hardstanding surface in the north-east corner of the site is 69.5 metres (m) above ordnance datum (AOD). The elevation decreases in the south-west direction, reaching the lagoon boundary at 68m AOD. The site is enclosed by surrounding bunded areas ranging in elevation from 70m to 75m AOD in the north-east and from 68m to 73m AOD in the south-west of the site. The lowest point of the site is at the bottom of the lagoon at 63m AOD.

2.4 Flood Zone

Initial observation of the Environment Agency's Flood Map for Planning shows the site located within Flood Zone 1, indicating a low probability of flooding. National Planning Policy Guidance Table 1:

Flood Zones advises that Flood Zone 1 Low Probability comprises land having a less than 0.1% annual probability of flooding from rivers or the sea. Flood risk will be assessed in greater detail further on in this report.

3. Development Proposals

3.1 Development Summary

The development proposals are for the expansion of the existing working area of the existing IBA processing facility at the Fortis' A303 Enviropark site. The proposed expansion would house an additional enhanced IBA recovery facility which would be sited inside a new building outside of the current footprint of the site, in the field area to the immediate north-east. A further building is proposed within the footprint of the existing site to house a replacement IBA processing plant, which is currently located on the open hardstanding.

Figure 3-1 shows the proposed site plan.



Figure 3-1 - Proposed Site Plan

3.2 Vulnerability

The NPPF guidance specifies five categories of development based on their perceived vulnerability to flood risk. These categories are as follows:

- Essential infrastructure
- Highly vulnerable
- More vulnerable
- Less vulnerable
- Water-compatible

Minerals working and processing falls under the 'less vulnerable' category. The NPPF provides guidance based on the flood risk vulnerability in specific flood zones. Table 3-1 below summarises this compatibility assessment.

Table 3-1 - Flood Risk Vulnerability and Flood Zone 'Incompatibility'

Flood Zones	Flood Risk Vulnerability Classification				
	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Zone 1	O	O	O	O	O
Zone 2	O	Exception Test Required		O	O
*Zone 3a	*Exception Test Required	X	Exception Test Required	O	O
**Zone 3b	**Exception Test Required	X	X	X	**O

Key:

O – Exception test is not required

X - Development should not be permitted

* - In Flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.

** - In Flood Zone 3b (functional floodplain) essential infrastructure that has passed the Exception Test, and water compatible uses, should be designed and constructed to remain operational and safe for users in times of flood; result in no net loss of floodplain storage; not impeded water flows and not increase flood risk elsewhere.

Notes:

1. This Table does not show the application of the Sequential Test which should be applied first to guide development the lowest flood risk areas; nor does it reflect the need to avoid flood risk from sources other than rivers and the sea.
2. The Sequential and Exception Tests do not need to be applied to minor developments and changes of use, except for a change of use to a caravan, camping or chalet site, to a mobile home or park home site.



- Some developments may contain different elements of vulnerability and the highest vulnerability category should be used unless the development is considered in its component parts.

3.3 Estimated Lifecycle of Development

For the purposes of this Flood Risk Assessment, the development will be assessed against a 75 year lifetime, as per the government guidance on Flood Risk and Coastal Change for non-residential development.

4. Sequential Test

Initial observation of the Environment Agency's Flood Map for Planning, Surface Water flood maps and Hampshire County Council's Test (Upper) Catchment Management Plan all show the site to be at low risk. On this basis, it is considered that there is no requirement for Sequential Testing.

5. Climate Change

On the basis that the facility will be designed for a non-residential 75-year lifecycle, the impacts of climate change on the assessed flood risk must be considered. The site falls within the Test and Itchen Management Catchment, as per Figure 5-1 below.

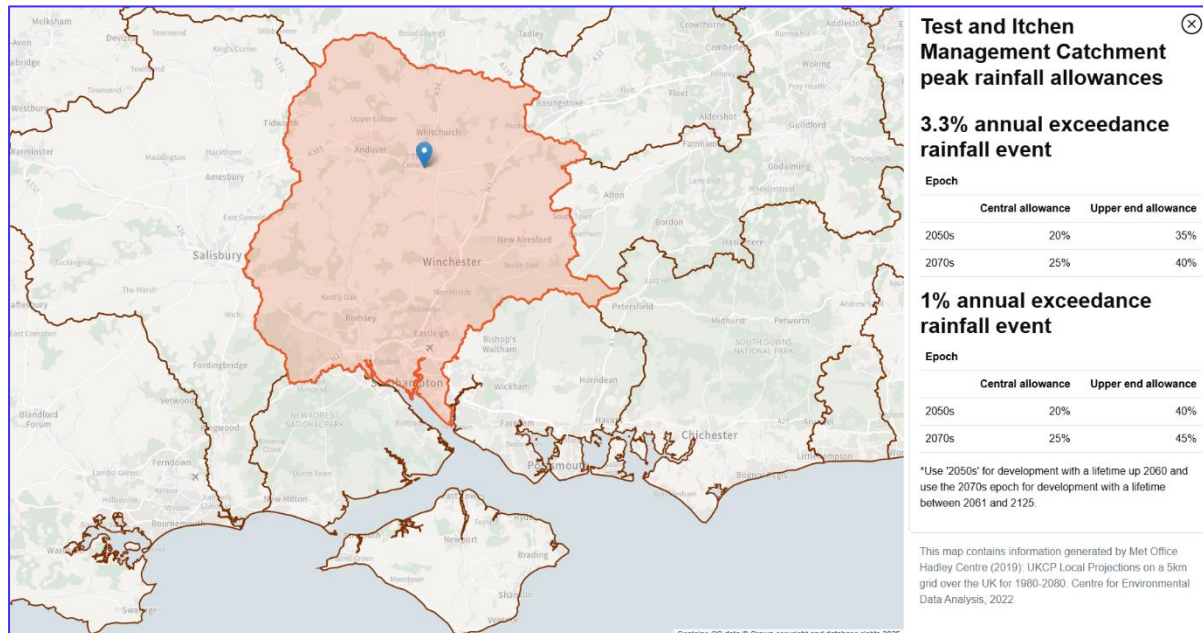


Figure 5-1 - Environment Agency Climate Change Allowance Map

The above figure depicts the vicinity of the site and illustrates that for the 1% AEP (1 in 100 year storm), the upper allowance value to be taken into consideration is 45%; with an allowance of 40% to be taken into consideration for the 3.3% AEP (1 in 30 year storm).

6. Site Specific Flood Risk

6.1 Environment Agency Flood Map for Planning

Based on the review of the Environment Agency's Flood Map for Planning, the site has been identified as lying entirely within Flood Zone 1, that is land assessed as having less than 1 in 1,000 annual probability of river or sea flooding (0.1%). The risk of flooding from rivers of the sea is considered very low.

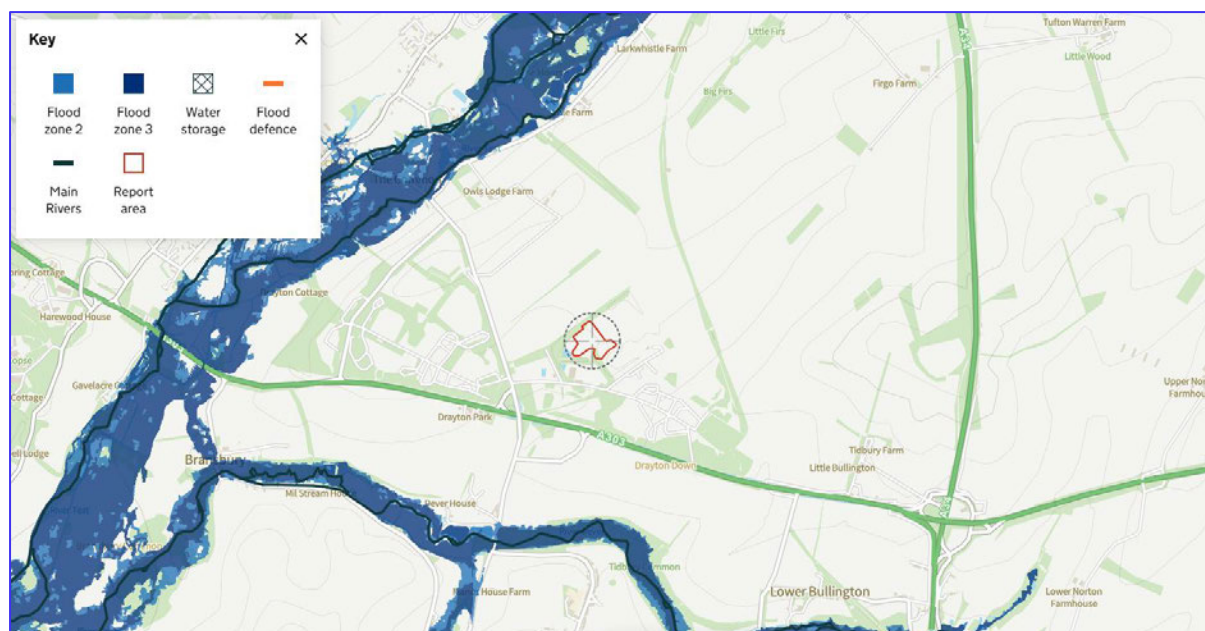


Figure 6-1 - EA Flood Map for Planning

6.2 Surface Water Flood Risk Mapping

The surface water flood risk mapping shows some localised surface water flooding in the middle of the site. In the present day there is a medium chance (between 1% and 3.3% chance each year) of flooding up to 20cm depth and low chance (between 0.1% and 1% chance each year) of flooding up to 30cm. The mapping indicates that this extent of flooding is not likely to exceed 30cm in depth. Between 2040 and 2060 this stays at low to medium risk of flooding, to a depth no greater than 30cm.

From assessment of the topographical survey, this area of flooding is a localised low spot in the greenfield area of the proposed development. This area is being developed and positive drainage will be provided, designed to accommodate the 1 in 100 year storm event, with a 45% allowance for climate change, mitigating this low-to-medium risk of surface water flooding. Therefore, the risk of surface water flooding on the site is considered low.

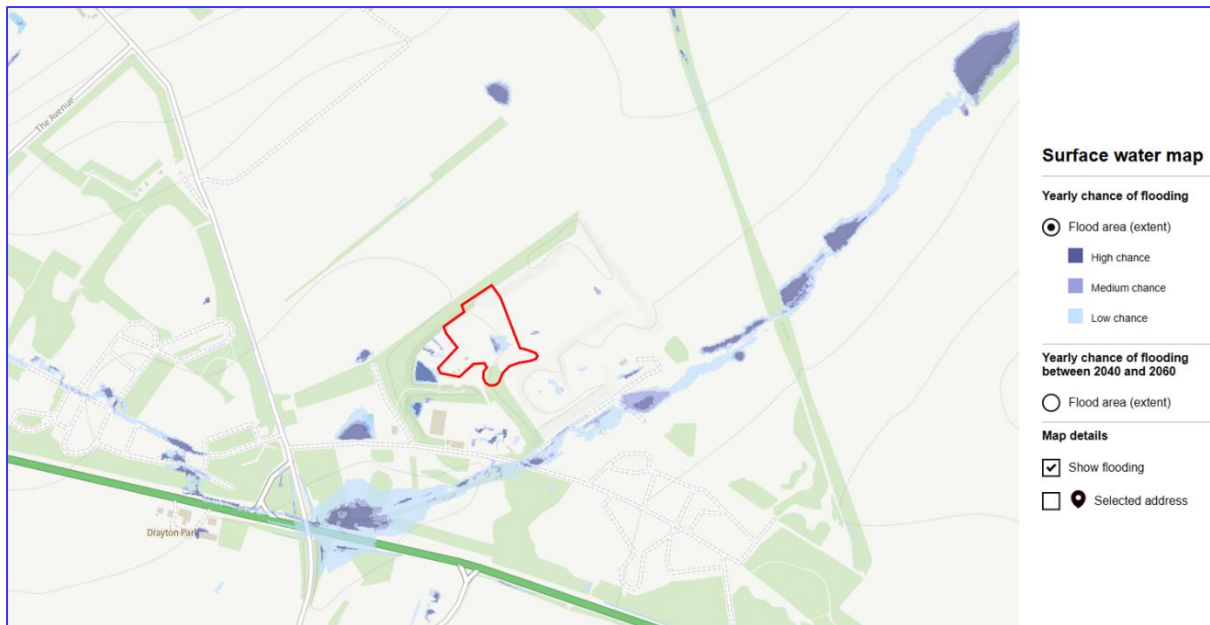


Figure 6-2 - EA Surface Water Flood Risk Map

6.3 Sewer Flooding

Southern Water public sewer records have been assessed and there are no recorded public sewers within or crossing the site. The nearest public sewers to the site are the 300mm foul sewers approximately 350m south-west of the site, flowing in a southerly direction away from the site.

See the extract of the public sewer maps below in Figure 6-3.



Figure 6-3 - Extract of Southern Water Public Sewer Map

Local topography indicates that the ground levels where the nearest public sewers are located are at a much lower elevation than the site. There are also no surface water sewers recorded in close proximity to the site. Therefore, the risk to the site from sewer flooding is considered low.

6.4 Groundwater Flooding

Recent groundwater level measurements were taken from a new monitoring point in the adjacent Front Field Site, which has a datum elevation of 62.35m AOD. The groundwater level data over the period from March to June 2025 are shown in Table 6-1. The groundwater level was at 55.35m AOD in March, dropped to 53.95m AOD in May and further declined to 53.55m AOD by June.

Table 6-1 - Groundwater Level Monitoring in Front Field Site

Month	Depth to Water (m bgl)	Level (m AOD)
March 2025	7	55.35
May 2025	8.4	53.95
June 2025	8.8	53.55

Given the significant level difference between the site and recently observed groundwater levels, the risk of groundwater flooding is considered very low.

6.5 Hampshire County Council Flood Risk Information

On review of Hampshire County Council's Test (Upper) Catchment Management Plan, there are no recorded historic flood events at or within the immediate vicinity of the site, as demonstrated in Figure 6-4 below.

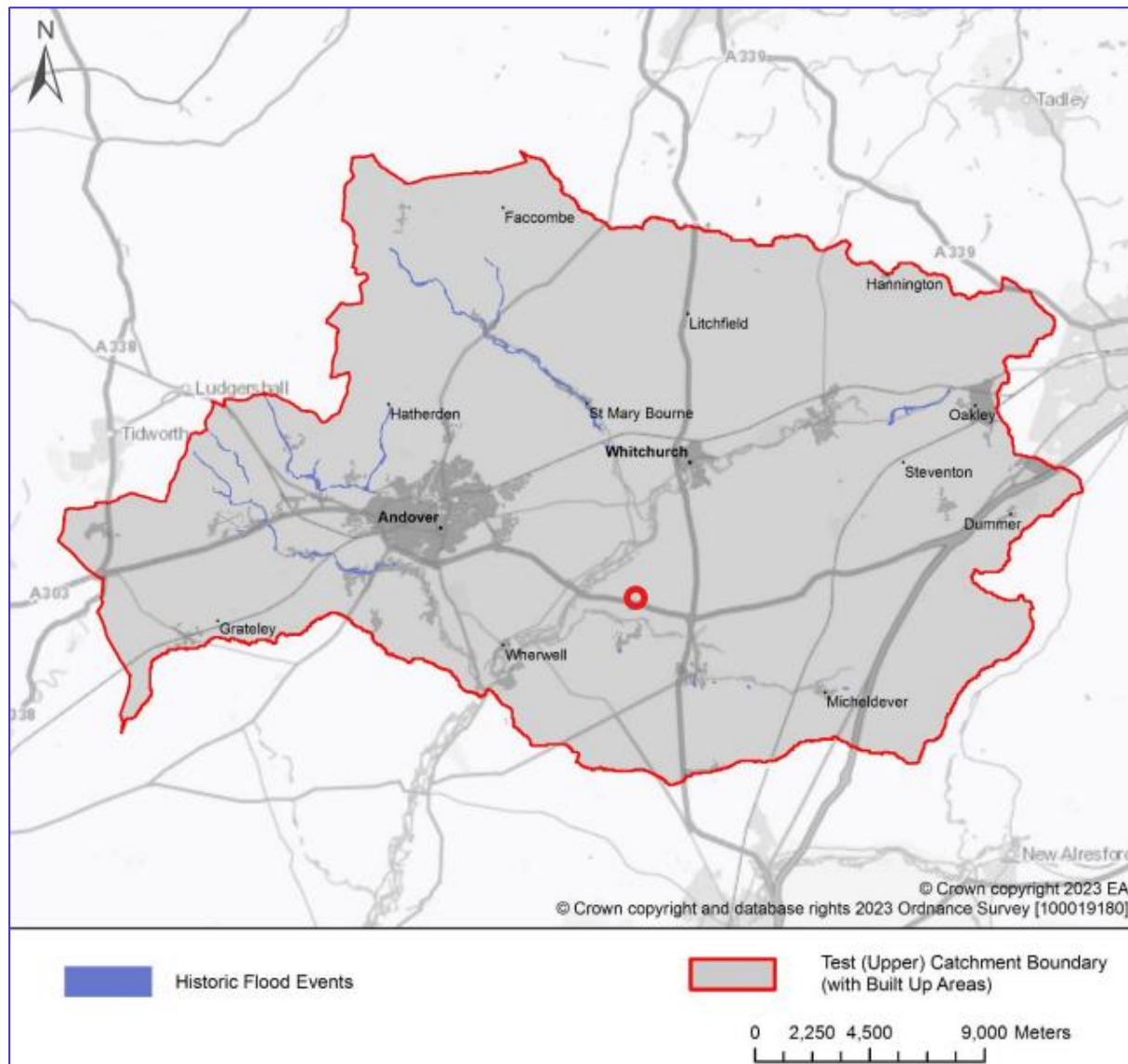


Figure 6-4 - Recorded Historical Flood events in the Test (Upper) Catchment

6.6 Flooding from Other Sources

The Environment Agency's Reservoir Flood Risk mapping has been reviewed and shows the site and surrounding area is not at risk of flooding from reservoirs.

6.7 Flood Risk Summary

Following review of available flood information, the flood risk can be summarised in Table 6-2 below.

Table 6-2 - Flood Risk Summary

Source	Rating
River Flood Risk	LOW
Surface Water Flood Risk	LOW
Reservoir Flood Risk	LOW
Existing Drainage Flood Risk	LOW
New Drainage Flood Risk	LOW
Groundwater Flood Risk	LOW
Climate Change	LOW
Residual (Lifecycle) Primary River Flood Risk	LOW



7. Outline Drainage Strategy

7.1 Existing Drainage

The existing water management strategy for the main site catchment is for stormwater to drain to a lined lagoon to the south-west corner of the existing site. The collected water is used for the re-wetting of the IBA stockpiles, by spray irrigating the stockpile surfaces. This prevents any contaminants derived from the IBA from leaving the site and entering the environment or needing costly and energy intensive treatment. This is the most sustainable way of providing the water required for the IBA storage. The eastern part of the proposed site is currently undeveloped with no positive drainage.

7.2 Runoff Destinations

The National Standards for Sustainable Drainage Systems (SuDS) states that a 'SuDS approach' shall be adopted to address the management of surface water by the development and where it should be discharged. Runoff shall be treated as a resource and managed in a way that avoids negative impacts on flood risk, the morphology of water quality of receiving waters and associated ecology.

Runoff from the development shall be discharged to the following final destination, to the maximum extent practicable, in accordance with the below hierarchy:

- Priority 1: collected for non-potable use
- Priority 2: infiltrated to ground
- Priority 3: discharged to an above ground surface water body
- Priority 4: discharged to a surface water sewer, or another piped surface water drainage system
- Priority 5: discharged to a combined sewer

The subsequent sections explain how this hierarchical approach has been assessed in relation to the development.

7.2.1 Collection for non-potable use

Development proposals include 14no. 30,000 litre above ground storage tanks to collect runoff from the roofs for non-potable use. For developments that incorporate rainwater harvesting so that no runoff leaves the development for lower order design storm events, the surface water drainage system is deemed compliant with Standard 2 of the National Standards for Sustainable Drainage Systems (SuDS) for management of everyday rainfall (interception), where at least the first 5mm of rainfall for the majority of rainfall events does not result in runoff from the site to surface waters of pipes drainage systems.



7.2.2 Infiltration to ground

Infiltration testing was completed at the site by Fortis IBA and AtkinsRéalis on 26 and 27 March 2024. The results of this site-specific infiltration testing suggested a design infiltration rate of 0.074 m/hr, with a factor of safety of 1.5 applied in accordance with CIRIA C753 SuDS Manual Table 25.2. This figure is greater than the minimum rate of infiltration of 0.0036 m/hr, for which discharge of runoff using point infiltration features can be fully relied on to discharge all runoff. Therefore, infiltration is considered a feasible method of surface water disposal. Infiltration features shall be designed so that rainfall events up to the 3.3% AEP event shall half empty their runoff volume within a maximum of 24 hours.

7.2.3 Discharge to above ground surface water body

This has not been assessed as collection for non-potable use and infiltration to the ground are considered feasible.

7.2.4 Discharge to a surface water sewer or other piped surface water drainage system

This has not been assessed as collection for non-potable use and infiltration to the ground are considered feasible.

7.2.5 Discharge to a combined sewer

This has not been assessed as collection for non-potable use and infiltration to the ground are considered feasible.

7.3 Attenuation Volume

The site has been separated into separate catchment areas, with the storage volumes required for each catchment estimated using FEH-22 data and a volumetric runoff coefficient (Cv) of 1.0 for both summer and winter based on the design infiltration rate of 0.074 m/hr. These are summarised below in Table 7-1:

Table 7-1 - Catchment Areas & Attenuation Volumes

Area Name	Catchment Area	Required Storage Volume
IBA Processing Plant	2,420m ² (0.242ha)	75 to 201m ³
Hardstanding	1,970m ² (0.197ha)	Already accounted for within existing lagoon
North Embankment	2,220m ² (0.222ha)	69 to 184m ³
Enhanced IBA Recovery Facility	6,860m ² (0.686ha)	213 to 569m ³
South Embankment	2,950m ² (0.295ha)	91 to 244m ³
Total (excl. hardstanding)	14,450 (0.295ha)	448 to 1,198m³



The intention is for the runoff from the new roofs to be collected for non-potable use, with overflows directed to infiltration devices designed to accommodate the 1 in 100 year +45% climate change event. These infiltrations devices will be a combination of swales and geo-cellular soakaway tanks (with a porosity of 0.95).

Embankments to the north and south will be treated as impermeable areas in the event of a 1 in 100 year +45% climate change event to mimic the scenario of the ground being saturated. Runoff from the embankments will be directed towards infiltration filter drains, infilled with geo-cellular crates having a porosity of 0.95, surrounded by free draining granular material (porosity 0.30).

As the new hardstanding in the loading area is less than the proposed roof area of the new IBA processing plant, it will be possible to shed off onto the hardstanding within the existing site and drain into the existing lined lagoon to the west of site. This keeps the potentially contaminated runoff from the hardstanding areas separate to the uncontaminated runoff from the roofs. As the hardstanding area where the new IBA processing plant is located currently drains to the lagoon and is less than the area of new hardstanding, there will be a reduction in the volume of runoff draining to the existing lagoon.

7.4 Source Control

The overarching aim of SuDS is to mimic natural processes for the disposal of surface water. This is further subdivided into the four pillars of SuDS:

- Reduce flood risk through reducing the quantity of disposed water.
- Improve the quality of disposed water to improve watercourse, waterbody, and groundwater quality.
- Provide increased biodiversity benefits.
- Provide amenity benefits.

Source control (the control of surface water as close to the source as possible) is also encouraged to avoid reliance on a single SuDS feature, to slow the flow and to improve awareness of a drainage system, which will help to identify maintenance requirements.

Site control (the control of surface water at the interface between a site and a receptor) is required for final discharges. Traditionally, these features tended to be large and heavily engineered, however a shift towards SuDS will almost always reduce the size, complexity, and costs of traditional piped systems.

A SuDS management train should seek to adhere to the four pillars of SuDS using source control features prior to final flow restriction at site control features.

Source control features have been assessed specifically for this development and are presented in Table 7-2.



Table 7-2 - Assessment of SuDS features

Feature	Inclusion	Comments
Blue/green roofs	N	Blue/green roofs were considered but excluded due to the nature of the architectural proposals i.e. pitched roof. Additional costs of installation on this type of development would have severe effect on the viability of the development.
Bioretention rain gardens	N	Rain gardens have been considered and excluded due to the requirement for hardstanding to be sealed and drained to the existing lagoon as part of the site water management strategy.
Filter drains	Y	Filter drains have been included to drain the embankments to the north and south of the development.
Swales/basins	Y	Swales have been considered and included to provide effective water quality and attenuation benefits.
Permeable pavement	N	Permeable pavements have been considered and excluded due to the requirement for hardstanding to be sealed for pollution control and drained to the existing lagoon as part of the site water management strategy.
Below ground tanks	Y	Below ground tanks will be required to provide the residual volume of storage required taking into consideration all of the source control features included in the design. The system will be designed with appropriate maintenance access to ensure long-term functionality.

7.5 Surface Water Quality

The water quality treatment train has been determined based on CIRIA 753 The SuDS Manual. The appraisal of the potential development characteristics and relevant SuDS components is presented below, demonstrating that the relevant indices can be met through the use of the SuDS Management Train.



Table 7-3 - Minimum water quality management requirements for discharges to receiving surface waters and groundwater (The SuDS Manual, 2015, Table 4.3)

Land Use	Pollution hazard level	Requirement for discharge to surface waters and groundwater
Other roofs (typically commercial/industrial roofs)	Low	Simple index approach

Steps in the simple index approach (The SuDS Manual, 2015, Box 26.2):

1. Allocate suitable pollution hazard indices for the proposed land use.
2. Select SuDS with a total pollution mitigation index that equals or exceeds the pollution hazard index.
3. Where the discharge is to protected surface waters or groundwater, consider the need for a more precautionary approach.

Where the mitigation index of an individual component is insufficient, two components (or more) in series will be required:

Total SuDS mitigation index = mitigation index 1 + 0.5 x mitigation index 2, etc.

A factor of 0.5 is used to account for the reduced performance of secondary or tertiary components where the discharge is of already reduced inflow concentrations to protected waters.

**Pollution hazard indices for different land use classifications
(The SuDS Manual, 2015, Table 26.3)**

Land Use	Pollution hazard level	Total suspended solids TSS	Metals	Hydrocarbons
Other roofs (typically commercial/industrial roofs)	Low	0.3	0.2 (up to 0.8 where there is potential for metals to leach from the roof)	0.05

**Indicative SuDS mitigation indices for discharges to groundwater
(The SuDS Manual, 2015, Table 26.4)**

Characteristics of the material overlying the proposed infiltration surface, through which the runoff percolates	TSS	Metals	Hydrocarbons
A soil with good contaminant attenuation potential of at least 300mm in depth	0.4	0.3	0.3
Infiltration trench (where suitable depth of filtration material is included that provides treatment i.e. graded gravel with sufficient smaller particles but not single size coarse aggregate such as 20mm gravel) underlain by a soil with good contaminant attenuation potential of at least 300mm in depth.	0.4	0.4	0.4



With the use of infiltration trenches and swales, the mitigation indices surpasses the pollution hazard indices for the site, demonstrating that there is sufficient scope to provide the required mitigation against potential pollution.

7.6 Maintenance Regime

In order to ensure that the surface water network and SuDS features are maintained appropriately, a proposed SuDS Operation and Maintenance Manual should be prepared prior to handover.

8. Occupants & Users of the Development

8.1 Occupants & Users

Given that the proposals are for an expansion to an existing site, with occupation only slightly increasing (the proposal will generate employment for an additional 11 full time site-based staff (24 staff in total)), the degree of flood risk to the occupants and users of the site is not considered to increase.

8.2 Flood Warnings

It is an important consideration of a Flood Risk Assessment to consider access and egress arrangements for the occupants and users of the development should any major flooding occur within the development lifecycle. It should be noted that the development is not in an area covered by Environment Agency Flood Warnings.

8.3 Access & Agress

The site has been assessed to be at low risk of flooding, therefore the risk of any impact to access and egress is low. It should be noted that the proposed drainage system will be designed for storms up to the 1 in 100 year plus 45% climate change event.

9. Exception Test

As per the Environment Agency Flood Map for Planning, the site is in Flood Zone 1 therefore an Exception Test is not required.

10. Residual Risk

A Flood Risk Assessment should consider the residual risk to a proposed development for its intended lifecycle. In this case, a 75-year lifecycle is assumed for non-residential development.



Proposed drainage will be designed to accommodate the 1 in 100 year plus 45% climate change event, and taking into consideration exceedance flow paths, the site will be safe and not increase flood risk to others for its intended lifecycle. The residual risk is therefore considered low.

11. Flood Risk Assessment Credentials

This Flood Risk Assessment has been undertaken by AtkinsRéalis Civil Engineering team who have extensive combined experience of civil engineering and flood risk assessment preparation. This Flood risk assessment has been carried out following the general requirements of the NPPF.

12. Conclusions & Recommendations

This report assesses flood risk and proposes a drainage strategy for the expansion of the existing working area of the existing IBA processing facility at the Fortis' A303 Enviropark site.

The proposed development is located within Flood Zone 1, indicating a low risk of fluvial flooding. All other sources of flood risk have been assessed and considered low.

The drainage strategy employs a sustainable approach, integrating features to collect water for non-potable use and infiltration to manage runoff and improve water quality. By managing water close to the course and slowing its movement across the site, the strategy aims to mimic natural runoff.

On-site storage for storms up to the 1 in 100 year +45% climate change event will be provided via swales, infiltration trenches and geo-cellular tanks. These flood mitigation recommendations and surface water drainage strategy meet the requirements of the National Standards for Sustainable Drainage and the NPPF, ensuring a sustainable, long-term solution that effectively addresses flood risk in the present and future.



Appendix A – Architect's Proposals





Notes:

1. DO NOT SCALE FROM THIS DRAWING.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT.
3. THE DEVELOPMENT LAYOUT HAS BEEN TAKEN FROM FORTIS'S DRG. NO. FIBA-A303ME-SK008 REV 4 DATED 09-05-25 & THE SURVEY FROM FORTIS'S TOPOGRAPHICAL LAND SURVEY.

KEY	
	CONCRETE SLAB
	ASPHALT
	GRASS
	FFL 70.100 CONCRETE SLAB LEVEL
	PROPOSED GRADIENT
	PROPOSED LEVEL
	EXISTING LEVEL
	PROPOSED MINOR CONTOUR
	PROPOSED MAYOR CONTOUR
	WATER TANKS ON CONCRETE SLAB (INDICATIVE LOCATION)
	HARD SURFACE PATH 1.5m WIDE
	INFILTRATION FILTER DRAIN
	WATER FLOW ROUTE

D	CAR PARK LEVELS UPDATED	SGS	CJM	06.08.25
C	MINOR AMENDMENTS	SGS	CJM	09.07.25
B	ASPHALT & IBA PLANT AREA UPDATED	SGS	CJM	19.06.25
A	FOR PLANNING	SGS	CJM	13.06.25
Rev	Description	Drm	Chk	Date

BdR

Civil & Structural Engineering Consultants
The Old Engine House, Goblands Farm Business Park
Court Lane, Hadlow, Kent, TN11 0DP
Tel 01732 851416
email: engineering@bdr.uk.com

Client **FORTIS**
Preserving our Natural Resources

Project
A303 ENHANCED IBA RECOVERY FACILITY, DRAYTON ROAD
BARTON STACEY, ANDOVER, SO21 3OS

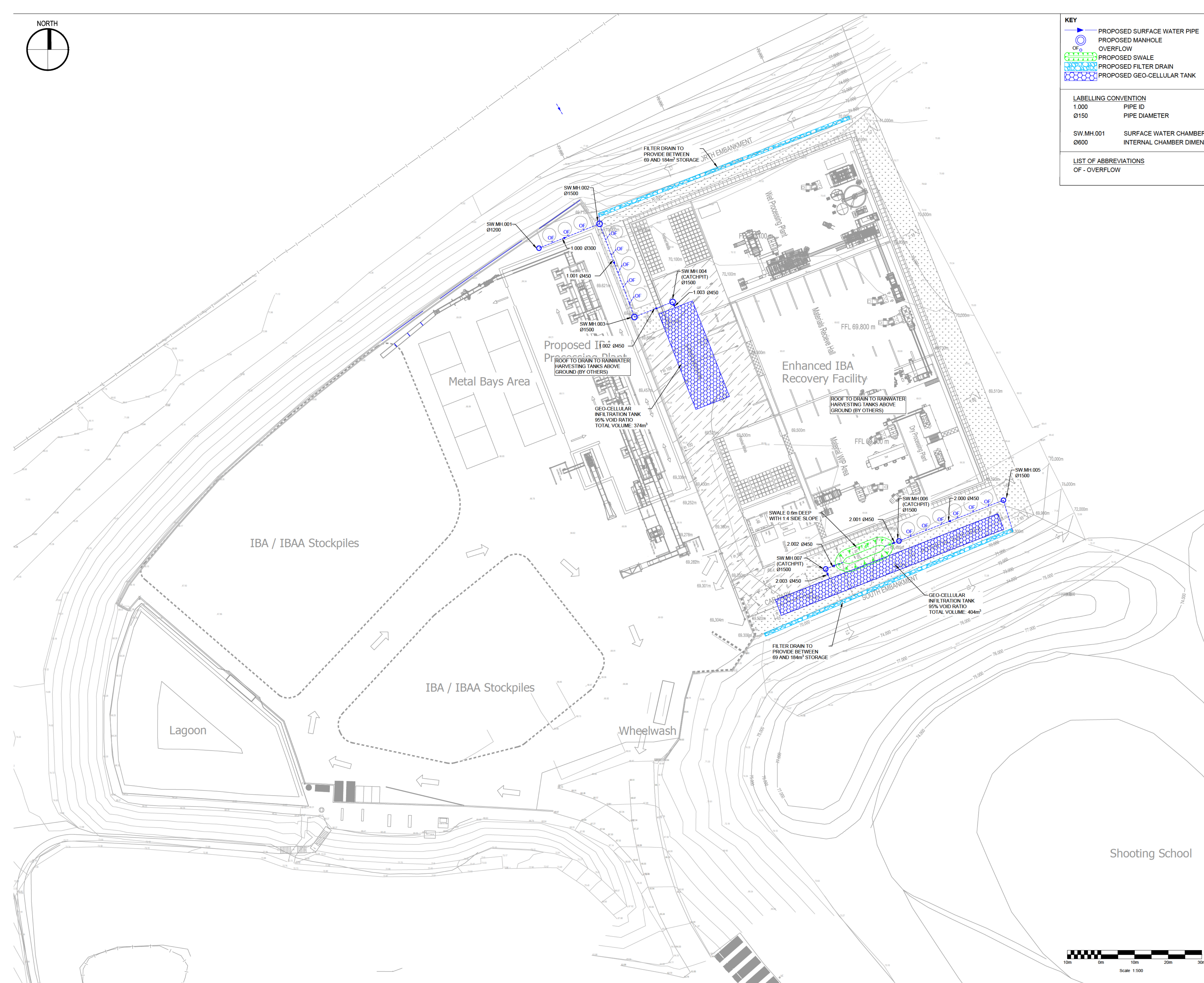
Drawing
SITE PLAN LAYOUT

FOR PLANNING

Scale @ A1 1:500	Date 06.06.25	Drawn by SGS	Checked CJM
Job No. 25-0064	Drg. No. C10101	Rev D	

Appendix B – Outline Drainage Drawings





Do not scale from drawings. Verify all dimensions on site prior to construction. This drawing is to be read in conjunction with all relevant documents and drawings. Report all discrepancies to AtkinsRéalis immediately.

No unauthorised use, disclosure, storage or copying.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

CONSTRUCTION

BURIED SERVICES INCLUDING POSSIBILITY OF UNCHARTED SERVICES- REFER TO SERVICE PLANS AND USE CABLE AVOID TOOLS PRIOR TO DIGGING. POTENTIAL OF BURIED CONTAMINATION INCLUDED ASBESTOS. LOW RISK OF UNEXPLODED ORDNANCE- KEEP WATCH DURING GROUND WORKS. IF IN DOUBT, STOP WORK AND ASK FOR ALL PROJECT AND BUILDING RISKS REFER TO PROJECT & DESIGN RISK REGISTER.

MAINTENANCE/CLEANING

NO SIGNIFICANT RISK IDENTIFIED. FOR ALL PROJECT AND BUILDING RISKS REFER TO PROJECT & DESIGN RISK REGISTER.

DECOMMISSIONING/DEMOLITION

NO SIGNIFICANT RISK IDENTIFIED. FOR ALL PROJECT AND BUILDING RISKS REFER TO PROJECT & DESIGN RISK REGISTER.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

NOTES

- THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL PROJECT DRAWINGS AND SPECIFICATIONS.
- ALL CO-ORDINATES ARE IN METRES (m) UNLESS OTHERWISE STATED.
- THIS DRAWING HAS BEEN BASED ON THE FOLLOWING INFORMATION:
 - BDR 'SITE PLAN LAYOUT' (25-0064-C10101 Rev D)
 - TOPOGRAPHICAL SURVEY DRAWING PROVIDED BY FORTIS IBA.
 - DAVID JARVIS ASSOCIATES' 'SITE LAYOUT' (3388-5-2 DR-0002 S5-P1).

P01	ATR	FORTIS	11/08/25	PLANNING SUBMISSION
Rev	Issued by	Issued to	Date	Description

Key Plan

NOT APPLICABLE

Project Status

PLANNING

Client



Preserving our Natural Resources

Floor 2, Fryern House, Winchester Road, Chandlers Ford, Hampshire, SO53 2DR

Project Description / Site

A303 ENHANCED IBA RECOVERY FACILITY

Project Address

DRAYTON ROAD
BARTON STACEY, ANDOVER
SO21 3OS

Building Type

Drawing Title

OUTLINE DRAINAGE STRATEGY PLAN

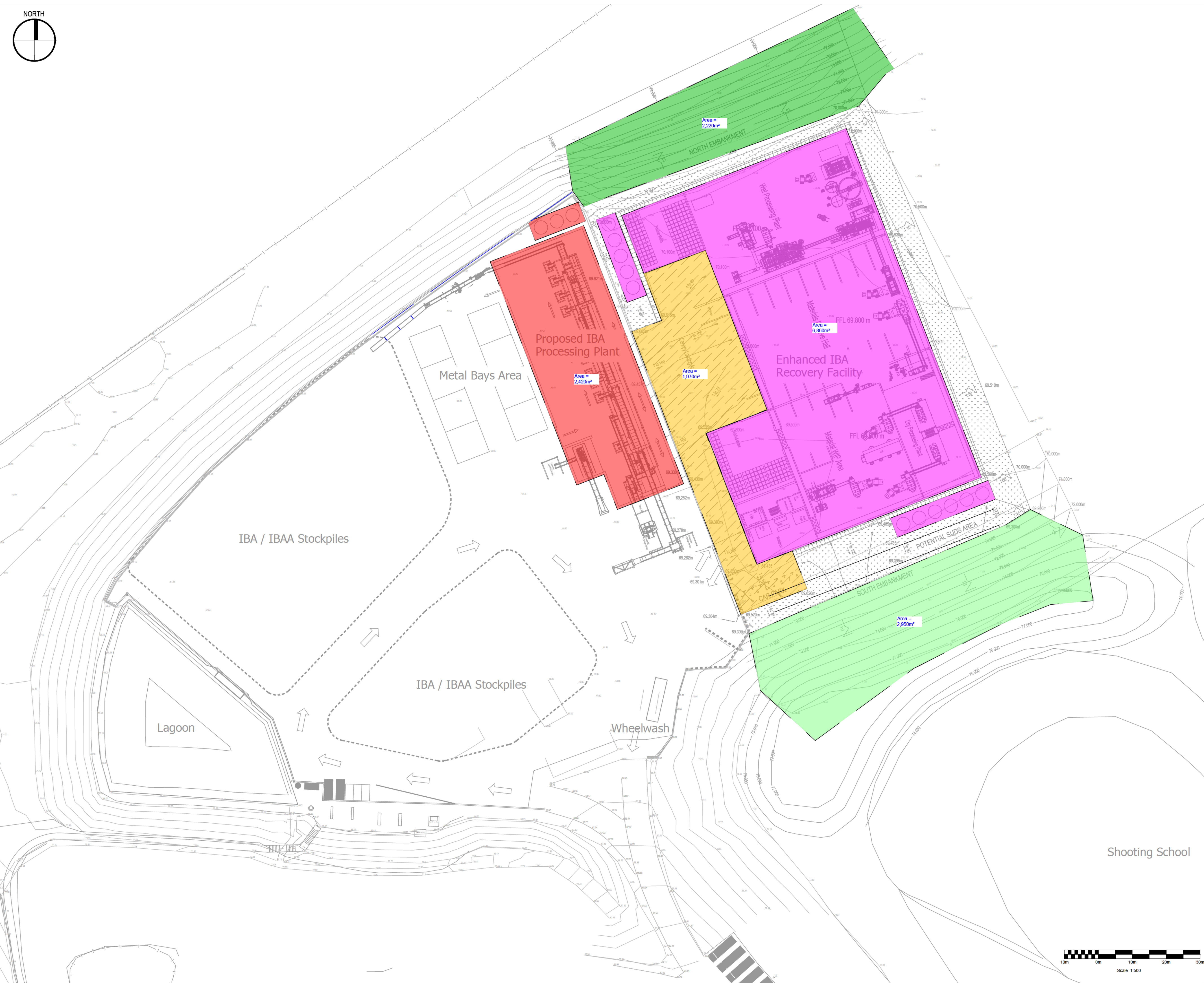
Original Logo	Drawn By: LMc	Date: 08/08/2025
	Checked By: GSS	Date: 08/08/2025
	Approved By: AS	Date: 08/08/2025

Drawing Number

100094734-ATR-XX-XX-D-C-0001

Sheet No.	Scale	Orig. Sheet Size	Rev.
1 of 1	1:500	@ A1	P01

Data Security Classification	Suitability
BASELINE	S2



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MAINTENANCE/CLEANING

NO SIGNIFICANT RISK IDENTIFIED. FOR ALL PROJECT AND BUILDING RISKS REFER TO PROJECT & DESIGN RISK REGISTER.

DECOMMISSIONING/DEMOLITION

NO SIGNIFICANT RISK IDENTIFIED. FOR ALL PROJECT AND BUILDING RISKS REFER TO PROJECT & DESIGN RISK REGISTER.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

NOTES

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- ALL CO-ORDINATES ARE IN METRES (m) UNLESS OTHERWISE STATED.
- THIS DRAWING HAS BEEN BASED ON THE FOLLOWING INFORMATION:
 - BDR 'SITE PLAN LAYOUT' (25-0064-C10101 Rev D)
 - TOPOGRAPHICAL SURVEY DRAWING PROVIDED BY FORTIS IBA.
 - DAVID JARVIS ASSOCIATES' SITE LAYOUT' (3388-5-2 DR-0002 SS-P1).

P01	ATR	FORTIS	11/08/25	PLANNING SUBMISSION
Rev	Issued by	Issued to	Date	Description

Key Plan

NOT APPLICABLE

Project Status

PLANNING

Client



Floor 2, Fryern House, Winchester Road, Chandlers Ford, Hampshire, SO53 2DR

Project Description / Site

A303 ENHANCED IBA RECOVERY FACILITY

Project Address

DRAYTON ROAD
BARTON STACEY, ANDOVER
SO21 3OS

Building Type

Drawing Title

CATCHMENT AREAS

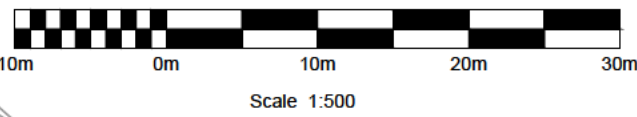
Original Logo	Drawn By: LMc	Date: 08/08/2025
AtkinsRéalis	Checked By: GSS	Date: 08/08/2025
	Approved By: AS	Date: 08/08/2025

Drawing Number
100094734-ATR-XX-XX-D-C-0002

Sheet No.	Scale	Orig. Sheet Size	Rev.
1 of 1	1:500	@ A1	P01

Data Security Classification BASELINE	Suitability S2
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File Path



Appendix C – Causeway Flow Quick Storage Estimates



Simulation Settings

[illegible]

IBA Processing Plant Storage Estimate

Storage Estimate

Return Period (years)	100	Update	OK
Climate Change (%)	45		Cancel
Impermeable Area (ha)	0.242		
Peak Discharge (l/s)	0.000		
Infiltration Coefficient (m/hr) (leave blank if no infiltration)	0.07400	Calc	
Required Storage (m³)	Calc		
from	277		
to	277		
With infiltration (m³)			
from	75		
to	201		

North Embankment Storage Estimate

Storage Estimate

Return Period (years)	100	OK Cancel
Climate Change (%)	45	
Impermeable Area (ha)	0.222	Update
Peak Discharge (l/s)	0.000	
Infiltration Coefficient (m/hr) (leave blank if no infiltration)	0.07400	Calc
Required Storage (m ³)	Calc	
from	254	
to	254	
With infiltration (m ³)		
from	69	
to	184	

Enhanced IBA Recovery Facility Storage Estimate

Storage Estimate

Return Period (years)	100	OK Cancel
Climate Change (%)	45	
Impermeable Area (ha)	0.686	Update
Peak Discharge (l/s)	0.000	
Infiltration Coefficient (m/hr) (leave blank if no infiltration)	0.07400	Calc
Required Storage (m ³)	Calc	
from	785	
to	785	
With infiltration (m ³)		
from	213	
to	569	

South Embankment Storage Estimate

Storage Estimate

Return Period (years)	100	OK
Climate Change (%)	45	Cancel
Impermeable Area (ha)	0.295	Update
Peak Discharge (l/s)	0.000	
Infiltration Coefficient (m/hr) (leave blank if no infiltration)	0.07400	Calc
Required Storage (m ³)	Calc	
from	338	
to	338	
With infiltration (m ³)		
from	91	
to	244	

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