WASTE TREATMENT AND PACKAGING FACILITY, ST MICHAELS CLOSE - PERMIT APPLICATION SUPPORTING DOCUMENT

St Michaels Close, Aylesford, Kent, ME20 7XE

Elliot Environmental Drainage Limited

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1 Introduction

1.1 Overview

1.1.1 This document contains supporting information which accompanies the Environmental Permit (EP) application being submitted for a waste treatment and packaging facility being installed at St Michaels Close, Aylesford, Kent. This application has been completed on behalf of Elliot Environmental Drainage Limited by Oaktree Environmental Ltd.

1.2 Proposed Activities

1.2.1 The proposed process will be classed as a bespoke installation under the Environmental Permitting (England and Wales) Regulations 2016 ("the EP regulations"). The activities being applied for are summarised in the table below.

Table 1.1 – Proposed Activities

Site Name	References under Schedule 1 Part 2 of the EP Regulations	Description of the Activity	Activity Capacity
Elliot Environmental Drainage Limited, St Michaels Close Waste Treatment and Packaging Facility	Section 5.3 Part A1(a)(ii)	Recovery of hazardous and non-hazardous waste with a capacity exceeding 10 tonnes/day involving physico-chemical treatment	90,000 tonnes/annum
	Section 5.3 Part A1(a)(iv)	Repackaging of hazardous and non-hazardous waste with a capacity exceeding 10 tonnes/day	
	Section 5.6 Part A1(a)(i)	Temporary storage of hazardous waste with a total capacity of >50 tonnes	

1.3 Details of Site Operator

1.3.1 This permit has been applied for by Elliot Environmental Drainage Limited.

1.4 Permit Boundary

1.4.1 Reference should be made to Appendix I for a map showing the proposed permit boundary for the site.

1.5 Pre-Application

1.5.1 Pre-application advice was previously sought from the Environment Agency (EA). The pre-application report was received on 21st July 2020, reference no. EPR/PP3406SH/A001. A copy of this report is contained within Appendix II for reference. Since the initial pre-application advice request, the proposed throughput capacity has been revised. There have also been revisions made to the proposed technology and reconfiguration to the proposed layout, but the principles of the proposed operation remain the same, which is to include the treatment of hazardous and non-hazardous waste liquids, sludges and soils and repackaging of hazardous and non-hazardous wastes.

1.6 Development Phasing

1.6.1 It is anticipated that the operations will proceed in two phases. Phase 1 will include a waste throughput capacity of up to 40,000 tonnes of waste per annum. Phase 2 will include a waste throughput capacity of up to 90,000 tonnes of waste per annum. It is currently anticipated that Phase 1 will include the first two years of operation and the increased capacity during Phase 2 occurring thereafter.

1.7 Documents Consulted

1.7.1 Legislation and Guidance

1.7.1.1 The following legislative and guidance documents have been consulted for the purpose of completing this supporting document:

- Environmental Permitting (England and Wales) Regulations 2016 (as amended);

- Commission Implementing Decision (EU) 2018 (1147) of 10 August 2018 Establishing Best Available Techniques (BAT) Conclusions for Waste Treatment Under Directive 2010/75/EU of the European Parliament and of the Council;
- Environmental Permitting Regulations: Guidance for Applicants H5, Site Condition Report – Guidance and Templates, EA, April, 2013;
- Permitting Risk Assessment Guidance on government website (https://www.gov.uk/government/collections/risk-assessments-for-specific-activities-environmental-permits);
- https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit; and,
- https://www.gov.uk/guidance/adapting-to-climate-change-risk-assessment-for-your-environmental-permit.

2 Operating Techniques

2.1 Overview

2.1.1 The proposals are for the installation of a specialist waste treatment and packaging facility. The facility will accept and manage the following types of wastes:

- Liquid wastes and sludges, including, but not limited to, interceptor wastes and jetting sludges, to be subject to physico-chemical treatment;
- Gulley and road sweepings to be subject to physico-chemical treatment;
- Empty cans and containers which may contain traces of hazardous wastes, to be repackaged and sent on for further recovery/disposal; and,
- Other dry hazardous and non-hazardous wastes, hazardous and non-hazardous liquid wastes in containers, which will be repackaged and sent on for further recovery/disposal and not subject to treatment on-site.

2.1.2 As outlined above, a series of treatment/packaging operations will be undertaken on-site with the primary objective being the recovery of wastes as far as is possible. The proposed operations are described in detail in the following sections.

2.2 Detailed Description of Process

2.2.1 General

2.2.1.1 Reference should be made to Appendix I for a site layout plan illustrating the proposed operations and configuration of the layout.

2.2.2 Waste Treatment

2.2.2.1 The majority of wastes received on site, up to 39,000 tonnes of waste per annum during Phase 1 and 89,000 tonnes of waste per annum during Phase 2, will include waste liquids, sludges and soils which will be subject to physico-chemical treatment.

2.2.2.2 Vehicles arriving at the site will report to offices for waste acceptance checks. Waste will be sampled to ensure it is eligible for acceptance into the site, any unauthorised/negative results will result in wastes being rejected, whist a positive result will ensure waste acceptance and the vehicle will be directed to the relevant reception area.

2.2.2.3 The wastes to be subject to treatment, i.e. sludges, grits, and liquid waste will be unloaded into the pit within Building 2 and be unloaded using a combination of pumping, tipping or ejection in a controlled manner. There will be two outlets from the treatment plant, i.e. hazardous and non-hazardous, which are blown through to the relevant tank or plant.

2.2.2.4 The load will be tipped and or washed out into the CDE Hydro max which will contain solid mater such as grits/rags/organics etc. It is worth noting that some solids will enter the conveyor system and be transported to the relevant stockpile.

2.2.2.5 Once the waste is processed through the Hydro tip it will be screened and dewatered through the CDE G:Max which will further separate liquids, sands/grits and organic matter, a rake screen will also be utilized to remove heavy solids as well as a grit screen which is used to further separate solids from liquids. The resultant liquids will be pumped directly into the appropriate hazardous or non-hazardous waste storage tanks which are to be located externally to the main processing building. There will be 3 such storage tanks which each have a capacity of approximately 90,000 – 100,000litres and will temporarily store the liquid prior to it being processed further through wet waste treatment plant.

2.2.2.6 It is worth noting that the reception pit will only ever contain either hazardous or non-hazardous material at any one time to prevent cross contamination of loads. Between reception of the different types of loads, the pit will be emptied and cleared prior to the acceptance of a different waste stream.

2.2.2.7 Once the waste has accumulated within the external tanks it will be discharged into the warehouse building via enclosed HDPE pipework for water treatment and further screening. Water will be pumped through the flocculation unit equipped with sensors linked to a

control module and liquids will be treated as required. Water will then flow through the DAF unit where flocculation will take place.

2.2.2.8 Waste sludge will be pumped into the relevant sludge tank. The sludges can be recirculated through the flocculation units or pumped into centrifuge as required. The liquids (non-sludge) will be pumped onward where a carbon filter can be used or air introduced to further separate solids and liquids. The final phase water will flow through a sample chamber and onward to sewer. The solids will be run through centrifuge and into containers.

2.2.2.9 The building will include a Local Exhaust Ventilation (LEV) system, which will extract air, via a series of activated carbon filters for emissions control, with air exhausted via an external elevated flue for dilution and dispersion of residual emissions.

2.2.3 Waste Repackaging Facility

2.2.3.1 A much smaller quantity of wastes, up to 1,000 tonnes/annum will not be subject to treatment and will simply be repackaged and sent on for further recovery or disposal. This will include either dry non-hazardous and hazardous wastes, non-hazardous and hazardous liquid wastes in containers or empty containers such as paint tins and bleach bottles which may contain residues of hazardous wastes which will be stored within a bunded storage area prior to being repackaged for export for further recovery or disposal at a suitably licenced facility.

2.3 Waste Codes

2.3.1 A full list of waste codes with descriptions for incoming waste streams is included in the table below.

Table 2.1 – Proposed EWC Waste Codes

Permitted waste types and quantities	
Maximum Quantities	**The total quantity of waste accepted for activity shall be a maximum of 90,000 tonnes per year.**
Waste Code	**Description**
01	**Wastes resulting from exploration, mining, quarrying, and Physical and chemical treatment of minerals**
01 05	**drilling muds and other drilling wastes**
01 05 04	freshwater drilling muds and wastes
01 05 05*	oil-Containing drilling mud and waste
01 05 06*	drilling muds and other muds and waste containing dangerous substances
01 05 07	barite-containing drilling muds and wastes other than mentioned in 01 05 05* and 01 05 06*
10 05 08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
02	**Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing**
02 02	**wastes from the preparation and processing of meat, fish and other foods of animal origin**
02 02 01	sludges from washing and cleaning
02 02 04	materials unsuitable for consumption and processing
02 03	**wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**
02 03 05	sludges from on-site effluent treatment
02 04	**wastes from sugar processing**
02 04 03	sludges from on-site effluent treatment
02 05	**wastes from the dairy products industry**
02 05 02	sludges from on-site effluent treatment
02 06	**wastes from the baking and confectionery industry**
02 06 03	sludges from on-site effluent treatment
02 07	**wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)**
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 03	wastes from chemical treatment
02 07 05	sludges from on-site effluent treatment
03	**Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard**
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 09	lime mud waste
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
05	**Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal**
05 01	**wastes from petroleum refining**
05 01 05*	oil spills
05 01 09*	sludges from on-site effluent treatment containing hazardous substances
05 01 10	sludges from on-site effluent treatment other than those mentioned in 05 01 09
05 01 13	boiler feedwater sludges

Permitted waste types and quantities	
Maximum Quantities	**The total quantity of waste accepted for activity shall be a maximum of 90,000 tonnes per year.**
Waste Code	**Description**
05 01 14	wastes from cooling columns
07	**Wastes from organic chemical processes**
07 06	**wastes from the MFSU of fats, grease, soaps, detergents, disinfectants, and cosmetics**
07 06 11*	sludges from on-site effluent treatment containing hazardous substances
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
08	**Wastes from the manufacture, formulation, supply and use (mfsu) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks**
08 02	**wastes from MFSU of other coatings (including ceramic materials)**
08 02 02	aqueous sludges containing ceramic materials
08 02 03	aqueous suspensions containing ceramic materials
10	**Wastes from thermal processes**
10 12	**wastes from manufacture of ceramic goods, bricks, tiles and construction products**
10 12 13	sludge from on-site effluent treatment
13	**Waste from oil and liquid fuel waste**
13 01	**waste hydraulic oils**
13 01 11*	synthetic hydraulic oils
13 01 12*	readily biodegradable hydraulic oils
13 01 13*	other hydraulic oils
13 04	**bilge oils**
13 04 01*	bilge oils from inland navigation
13 04 02*	bilge oils from jetty sewers
13 04 03*	bilge oils from other navigation
13 05	**waste from oil/water separator contents**
13 05 01*	solids from grit chambers and oil/water separators
13 05 02*	sludges from oil/water separators
13 05 03*	interceptor sludges
13 05 06*	oil from oil/water separators
13 05 07*	oily water from oil/water separators
13 05 08*	mixtures of wastes from grit chambers and oil/water separators
13 07	**wastes of liquid fuels**
13 07 01*	fuel oil and diesel
13 07 02*	petrol
13 07 03*	other fuels (including mixtures)
15	**Waste packaging absorbents, wiping cloths, filter materials and protective clothing not otherwise specified**
15 01	**packaging**
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging

Permitted waste types and quantities	
Maximum Quantities	**The total quantity of waste accepted for activity shall be a maximum of 90,000 tonnes per year.**
Waste Code	**Description**
15 01 09	textile packaging
15 01 10*	packaging containing residues of or contaminated by hazardous substances
15 01 11*	metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers
16	**Other wastes from industrial processes**
16 01	**End-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08**
16 01 14*	antifreeze fluids containing hazardous substances
16 07	**Transport tank – storage tank and barrel cleaning (except 05 and 13)**
16 07 08*	wastes containing oil
16 10	**aqueous liquid wastes destined for off-site treatment**
16 10 01*	aqueous liquid wastes containing dangerous substances
16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01
16 10 03*	aqueous concentrates containing dangerous substances
16 10 04	aqueous concentrates other than those mentioned in 16 10 03
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 01	**concrete, bricks, tiles and ceramics**
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 05*	dredging spoil containing hazardous substances
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 07*	track ballast containing hazardous substances
17 05 08	track ballast other than those mentioned in 17 05 07
17 08	**gypsum-based construction material**
17 08 01*	gypsum-based construction materials contaminated with hazardous substances
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 05	**wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal and similar wastes
19 06	**wastes from anaerobic treatment of waste**
19 06 03	liquor from anaerobic treatment of municipal waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 07	**landfill leachate**
19 07 02*	landfill leachate containing dangerous substances
19 07 03	landfill leachate other than those mentioned in 19 07 02
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 01	screenings
19 08 02	waste from desanding
19 08 05	sludges from treatment of urban waste water
19 08 09	grease and oil mixture from oil/water separation containing only edible oil and fats
19 08 10*	grease and oil mixture from oil/water separation other than those mentioned in 19 08 09

Permitted waste types and quantities	
Maximum Quantities	**The total quantity of waste accepted for activity shall be a maximum of 90,000 tonnes per year.**
Waste Code	**Description**
19 08 11*	sludges containing dangerous substances from biological treatment of industrial water
19 08 12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11
19 08 13*	sludges containing dangerous substances from other treatment of industrial waste water
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 09	**wastes from the preparation of water intended for human consumption or water for industrial use**
19 09 02	sludges from water clarification
19 09 03	sludges from decarbonation
19 09 04	spent activated carbon
19 13	**wastes from soil and groundwater remediation**
19 13 03*	sludges from soil remediation containing dangerous substances
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
19 13 05*	sludges from groundwater remediation containing dangerous substances
19 13 06	sludges from groundwater remediation other than those mentioned on 19 13 05
19 13 07*	aqueous liquid wastes and aqueous concentrates from groundwater remediation containing dangerous substances
19 13 08	aqueous liquid wastes and aqueous concentrates from groundwater remediation other than those mentioned in 19 13 07
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 01	**separately collected fractions (except 15 01)**
20 01 08	biodegradable kitchen and canteen waste
20 03	**other municipal wastes**
20 03 03	street cleaning residues
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning

2.4 Environmental Management System

2.4.1 An Environmental Management System (EMS) for the proposed site has been prepared in accordance with best practice guidance at the time of drafting. Reference should be made to Appendix III for a copy of the EMS.

2.4.2 The EMS identifies the measures that will be taken to prevent or, where this is not practicable, to reduce emissions from the site.

2.4.3 The EMS has been produced prior to the site development and will therefore be reviewed on commencement of operations to ensure it reflects best practice and actual operations undertaken on site. The EMS will also be subject to continuous review and revision throughout the operation of the site. The EA will be supplied with details of revisions on a regular basis. Major revisions will be subject to prior approval by the EA.

2.5 Accident Management Plan

2.5.1 Reference should be made to Appendix VI for Accident Management Plan (AMP)

3 Raw Materials

3.1 Table 3.1 outlines the raw materials that will be used along with expected quantities and any relevant hazard descriptions. Justification for raw materials and resources used has also been provided in the table. The site operator will use appropriate measures to ensure that raw materials and resources are used efficiently and records will be maintained of raw material and resource use.

3.2 Manufacturer's guidelines will be followed when using specific fuels and consideration will be given to environmental impacts when purchasing new plant and equipment for the site. Any compounds utilised as described above will be used as recommended by specialist suppliers. Any quantities of materials used will be the minimum necessary to undertake the required process. A review of raw and auxiliary materials used on site will be carried out annually to assess whether any alternative materials can be used which would result in improved environmental performance. The reviews will ensure raw materials and resources used are appropriate, are used efficiently and any options for reduction in use identified, as applicable.

Table 3.1 – Raw Materials

Raw Material	Nature	Approximate Annual Throughput	Storage Details	Potential Hazards/Environmental Impact	Alternatives	Justification for Raw Material Used
Water	Liquid	15,000 litres	Mains supply	N/A – non-hazardous	No suitable alternative	Used for cleaning
Diesel	Liquid	2,000 litres	Bunded storage on site	Combustible liquid, harmful if swallowed, causes skin irritation, suspected of causing cancer, may be fatal if swallowed and enters airways, may cause damage to airways through prolonged or repeated exposure	Petroleum	Diesel is easier to store more safely on site as less flammable than petrol and is also more reliable during colder temperatures
Aluminium sulphate	Liquid	5,000 litres	Bunded storage of site in corrosive resistant container	May be corrosive to metals, causes serious eye damage. Very toxic to aquatic life.	No suitable alternative	Coagulant/flocculant required for water treatment process
Sodium aluminate	Liquid	5,000 litres	Bunded storage of site in corrosive resistant container	Corrosive, causes severe skin burns and eye damage	No suitable alternative	Coagulant/flocculant required for water treatment process
Ferric sulphate	Liquid	5,000 litres	Bunded storage of site in corrosive resistant container	Corrosive, may be corrosive to metals, harmful if swallowed, caused serious eye irritation, may cause respiratory irritation	No suitable alternative	Coagulant/flocculant required for water treatment process
Ferric chloride	Liquid	5,000 litres	Bunded storage of site in corrosive resistant container	Corrosive, may be corrosive to metals, harmful if swallowed, caused serious eye irritation, may cause respiratory irritation	No suitable alternative	Coagulant/flocculant required for water treatment process

Raw Material	Nature	Approximate Annual Throughput	Storage Details	Potential Hazards/Environmental Impact	Alternatives	Justification for Raw Material Used
Sodium hydroxide	Liquid	5,000 litres	Bunded storage of site in corrosive resistant container	Corrosive. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns. Eye contact may result in permanent eye damage.	No suitable alternative	Required for water treatment process – pH balancing
Lime	Liquid	5,000 litres	Bunded storage	Irritating to respiratory system. Irritating to skin. Risk of serious damage to eyes.	No suitable alternative	Required for water treatment process – pH balancing
Magnesium hydroxide	Liquid	5,000 litres	Bunded storage of site in corrosive resistant container	Irritant	No suitable alternative	Required for water treatment process – pH balancing
Calcium hydroxide	Liquid	5,000 litres	Bunded storage of site in corrosive resistant container	Corrosive. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation	No suitable alternative	Required for water treatment process – pH balancing
Activated carbon	Solid/filter medium	4,000 kg	Not stored on site	Flammable solid. Irritant to eyes. May cause respiratory irritation.	No suitable alternative	Required for abatement of VOCs from main process building

4 Waste

4.1 The table below outlines the anticipated wastes, European Waste Catalogue (EWC) code, relevant disposal or recovery code, annual throughout and details of how waste disposal is minimised.

Table 4.1 – Types and Quantities of Waste and Recovery/Disposal Routes

Waste Stream	Annex IIA or IIB (Disposal and Recovery Codes) Description	EWC Code	Maximum Throughput	Details of How Waste Disposal is Minimised
Interceptor wastes, jetting sludges/soils, gulley wastes, road sweepings, tanker wastes	R3, R4, R5, R13, D9, D13, D15	01 05 04, 01 05 05*, 01 05 06*, 01 05 07, 01 05 08, 02 02 01, 02 02 04, 02 03 05, 02 04 03, 02 05 02, 02 06 03, 02 07 01, 02 07 02, 02 07 03, 02 07 05, 03 03 09, 03 03 11, 05 01 05*, 05 01 09*, 05 01 10, 05 01 13, 05 01 14, 07 06 11*, 07 06 12, 08 02 02, 08 02 03, 10 12 13, 13 01 11*, 13 01 12*, 13 01 13*, 13 04 01*, 13 04 02*, 13 04 03*, 13 05 01*, 13 05 02*, 13 05 03*, 13 05 06*, 13 05 07*, 13 05 08*, 13 07 01*, 13 07 03*, 16 01 14, 16 07 08, 16 10 01*, 16 10 02, 16 10 03*, 16 10 04, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 19 05 01, 19 06 03, 19 06 04, 19 07 02*, 19 07 03, 19 08 01, 19 08 02, 19 08 05, 19 08 09, 19 08 10*, 19 08 11*, 19 08 12, 19 08 13*, 19 08 14, 19 09 02, 19 09 03, 19 09 04, 19 13 03*, 19 13 04, 19 13 05*, 19 13 06, 19 13 07*, 19 13 08, 20 03 03, 20 06 04, 20 03 06	Phase 1 - 39,000 tonnes/ Annum Phase 2 – 89,000 tonnes /annum	Waste imported to site for treatment/ recovery. The wastes will be subject to treatment in a plant to recover organic compounds and other solid materials
Wastes to be repackaged and sent on for further recovery/ disposal	R13, D14, D15	13 07 01*, 13 07 02*, 13 07 03*, 15 01 01, 15 01 02, 15 01 03, 15 01 04, 15 01 05, 15 01 06, 15 01 07, 16 10 01*,16 10 03*, 16 10 04, 17 01 07, 17 08 01*, 17 08 02, 19 07 02*, 19 07 03, 19 13 04, 19 13 05*, 19 13 06, 19 13 07*, 19 13 08, 20 01 08	1,000 tonnes/ annum	Waste imported to site. The waste is to be packaged prior to export from site for further recovery or disposal

Waste Stream	Annex IIA or IIB (Disposal and Recovery Codes) Description	EWC Code	Maximum Throughput	Details of How Waste Disposal is Minimised
Used carbon filters from odour abatement system	R13, D15	19 01 10*	4,000kg/ annum	Waste arises from spent filters from odour abatement system and will be recovered/ disposed
General waste (office etc)	R1,R4,R5,D10,	TBD	2 tonnes/ annum	Disposed/ recovered at suitably authorized facility

5 Emissions to Air, Land and Water

5.1 Point Source Emissions to Air

5.1.1 There will be one point source (channelled) emission to air from the process, this including the external flue which will serve the LEV System. A series of carbon filters will provide abatement prior to discharge of exhaust air from the building via the external flue.

5.1.2 Potential emissions include Volatile Organic Compounds (VOCs) and Hydrogen Chloride (HCL). EU Directive 2018 (1147) contains monitoring requirements and associated emission limits for Total VOCs and HCL for processes including the treatment of water based liquid wastes. Reference should be made to Section 5.7.1 for details of proposed monitoring which accords with the legislative requirements in this regard. An assessment of potential impacts has been undertaken through detailed emissions modelling. Reference should be made to Appendix IX for a copy of this assessment. This has demonstrated that potential impacts will not be significant.

5.1.3 There will be no other channelled to emissions to air from the process. The tanks which provide buffer storage of liquid wastes will include vents which may result in fugitive releases during filling operations, but these releases would be intermittent and not significant.

5.2 Point Source Emissions to Water

5.2.1 There will be no point source emissions to water from the process.

5.3 Point Source Emissions to Land

5.3.1 There will be no point source emissions to land from the process.

5.4 Point Source Emissions to Sewer

5.4.1 Treated effluent from the process will be discharged to foul sewer via the existing site drainage system, as shown by the layout plan. The site will have a trade effluent consent in

place which controls discharges to sewer. The Trade Effluent Consent will be obtained from the Sewerage Undertaker. Toilets on-site will also be discharged to sewer. The applicant has already approached the Sewer Undertaker (Castle Water) regarding the required Trade Effluent Consent, but been advised that the consent can only be obtained within 3 months of commencement of the proposed discharge. The quality of the final discharge will need to be agreed with the Sewer Undertaker as part of that application process. However, the following table provides provisional information on the quality of the proposed discharge.

Table 5.1 – Provisional Proposed Effluent Quality – Proposed Discharge to Foul Sewer

Substance	Maximum Concentrations to be Discharged ($mg.L^{-1}$)	Average Concentration to be Discharged ($mg.L^{-1}$)
Solids	100	50
Settled solids	1000	600
Ammonia	52	35
Chloride	50	35
Fats, Oils or Grease	300	200
Sulphate or Sulphide	1800	600
Phosphorus	To be determined by Sewer Undertaker as part of application process for Trade Effluent Consent	
Metals		
Organics		
Detergents		

5.4.2 Based on available information, it is assumed that the foul sewer serving the site discharges to Aylesford Wastewater Treatment Works and then to the tidal section of the River Medway.

5.5 Fugitive Emissions

5.5.1 Liquid wastes and sludges will not be a significant source of fugitive emissions, such as dust. Solid wastes from the process will be exported from site in covered/enclosed vehicles. In the event of spillages, these will be cleaned immediately using appropriate measures.

5.6 Odour Emissions

5.6.1 Potential for odour emissions is not expected to be significant. However, an Odour Management Plan (OMP) has been prepared as part of this application which has outlined

the controls that will be in place to control potential for odour emissions and potential impacts. Reference should be made to Appendix IV for a copy of the OMP.

5.7 Noise Emissions

5.7.1 Consideration has been given to potential sources of noise during the detailed plant design stage. Therefore, adequate noise abatement measures have been integrated into plant design. A quantitative noise assessment has been undertaken and Noise Management Plan (NMP) prepared as part of this application. Reference should be made to Appendix V for a copy of the Environmental Noise Assessment and NMP.

6 Point Source Emissions Monitoring

6.1 Point Source Air Emissions

6.1.1 The following table outlines proposed the method for monitoring of emissions to air, in accordance with EU Directive 2018 (1147). Reference should be made to the site layout drawing within Appendix I for details of emission point locations.

6.1.2 The table below outlines proposed emissions monitoring for emission point A1, which is the stack serving the odour abatement system. The pollutants to be monitored are in accordance with the Waste Treatment BAT Conclusions Document, specifically BAT 53 which relates to air emissions from the treatment of water based liquid wastes.

6.1.3 Stack sampling arrangements will be subject to detailed design to ensure compliance with the permit and relevant guidance. Stack sampling arrangements will be deigned to accord with the following, as far as is practicably possible:

- Sampling locations will be designed to meet BS EN 15259 Clause 6.2 and 6.3;
- Sample ports will be large enough for monitoring equipment and positioned in accordance with the relevant requirements of BS EN 15259;
- Access will be provided adjacent to sampling ports, such that sufficient working area, support and clearance is provided for sampling team to work safely with equipment;
- Sample locations will be at least 5 Hydraulic Diameters (HD) from the stack exit;
- Sample locations will be at least 2 HD upstream from any bend or obstruction; and,
- Sample locations will be at least 5 HD downstream from any bend or obstruction; and,
- The sample plane will have constant cross-sectional area.

Table 6.1 – Emission Limits and Monitoring Requirements – Emission Point A1

Pollutant	Emission Limits ($mg.Nm^{-3}$) Expressed at Reference Conditions of 273.15K, 101.3kPa, dry gas	Monitoring Frequency	Monitoring Method
HCL	5	Every six months	Manual extractive test - EN 1911 or EN 16429
Total VOC	20	Every six months	Manual extractive test - EN 12619 or EN ISO 13199

6.2 Point Source Emissions to Sewer

Discharge of treated water to sewer will be in accordance with a Trade Effluent Consent to be obtained from the Sewerage Undertaker. Limits and monitoring requirements will therefore need to be agreed as part of the application for this consent. The consent has not been obtained as the applicant has been advised that this can only be obtained within 3 months of commencement of the proposed discharge.

7 Energy Efficiency

7.1 Basic Measures for Efficient Use of Energy

7.1.1 All mobile and stationary plant and equipment utilised at the site will be subject to regular maintenance to optimise operating efficiency. A record of fuel consumption will be maintained and will be used to identify any abnormal fuel consumption that requires investigation. All staff will receive appropriate training for operations at the site which will include maintenance procedures and basic housekeeping (e.g. switching lights and equipment off when not in use). Low energy lighting systems will be used within the building.

7.1.2 The operator will review and record opportunities to improve energy efficiency on an annual basis and take any appropriate action as deemed necessary by the review.

8 Environmental Risk Assessment

8.1 Reference should be made to Appendix VII for an Environmental Risk Assessment (ERA) completed as part of the application. This has demonstrated that sufficient risk management measures will be in place to ensure environmental risks are minimal/negligible.

9 Best Available Techniques

9.1 An assessment of BAT has been undertaken against the relevant BAT measures within Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 which outlines BAT conclusions for wate treatment.[1]

9.2 Reference should be made to Appendix X for the BAT assessment.

[1] Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 Establishing Best Available Techniques (BAT) Conclusions for Waste Treatment, Under Directive 2010/75/EU of the European Parliament and of the Council.

10 Site Condition Report

10.1 Reference should be made to Appendix VIII for Site Condition Report for the proposed permit boundary area.

Permit Application Supporting Document

Appendix I

Permit Boundary and Site Layout Plan

NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	19.06.24	RS	Initial drawing

KEY:

Permit boundary

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
SITE LOCATION PLAN

CLIENT
Elliott Environmental Drainage Ltd

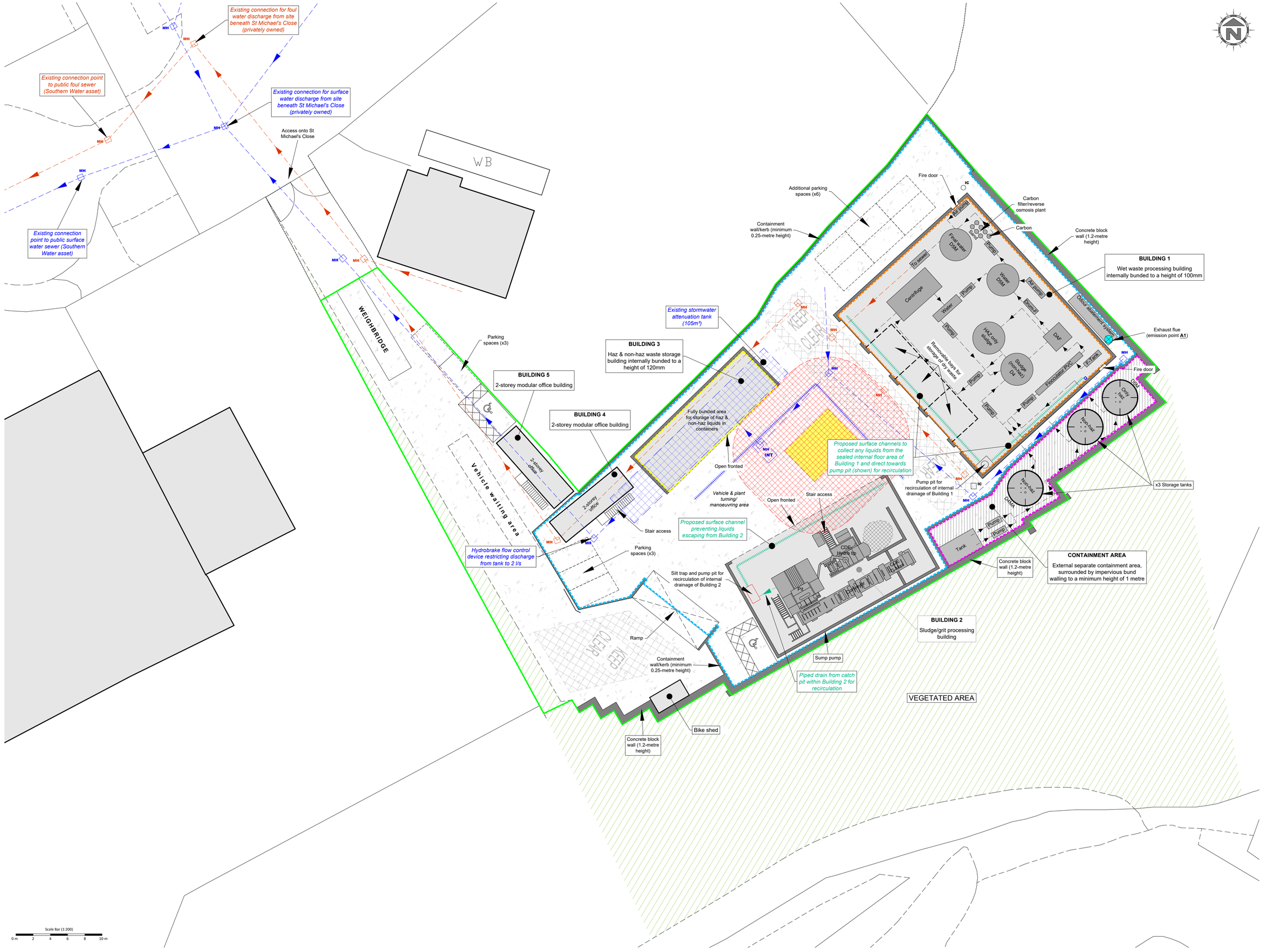
PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A4	CLIENT NO	JOB NO
1:1,250	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-02	-	Issued

DRAWN BY	CHECKED	DATE
RS	RS	19.06.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	08.11.23	RS/IA	Initial drawing
A	07.03.24	JH	Amendment
B	08.03.24	JH	Parking added
C	11.06.24	JH	Working amendment
D	19.06.24	RS	Application submission
E	26.06.24	RS	Quarantine area added

KEY:

- Permit boundary
- Containment Zone A (Building 1)
- Containment Zone B (Building 3)
- Containment Zone C (External tank storage area)
- Containment Zone D (Site-wide tertiary containment)
- INT — Full retention oil interceptor (fitted with penstock valve)
- Piped surface drainage (surface, foul, building)
- Linear surface channels (aco) - (surface, building)
- MH — Manhole (foul, surface)
- IC — Inspection cover (other services)
- Quarantine area (only used in the event of a fire and kept clear at all other times
- 6 metre separation distance around the quarantine area where no other combustible wastes will be stored

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
PERMIT LAYOUT PLAN

CLIENT
Elliott Environmental Drainage Ltd

PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A1	CLIENT NO	JOB NO
1:200	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-03	E	Issued

DRAWN BY	CHECKED	DATE
RS	RS	26.06.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
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Permit Application Supporting Document

Appendix II

Pre-Application Report

Dr. David Young

On behalf of Elliott Environmental Drainage Limited

By email only

Our reference: EPR/PP3406SH/A001

Date: 21 July 2020

Dear Dr. Young,

Pre application advice – Basic service
Site: St Michaels Close, Aylesford, Kent, ME20 7XE

Thank you for your pre application enquiry on 09 July 2020.

Based on the information contained in the enquiry form you submitted the facility will contain 3 installation activities, hazardous waste treatment, hazardous waste repackaging and hazardous waste storage. There will also be a non-hazardous waste activity.

Below are details about how to apply for this permit and how much it will cost.

Habitats

Your site is within our screening distance (see attached plan) for one or more of these conservation sites:

- European Site within the meaning of the Conservation of Habitats and Species Regulations 2017;
- Site referred to in the National Planning Policy Framework 2018 as requiring the same assessment as a European Site;
- Site of special scientific interest within the meaning of the Wildlife and Countryside Act 1981;
- Marine conservation zone within the meaning of the Marine and Coastal Access Act 2009.

You must assess the risks posed by your activity for the identified sites and include the additional Habitats assessment charge of £779 to cover the additional assessment work we must undertake unless the nature of your proposed change is such that there is no potential mechanism (source) for any impact. Where you consider there is no impact this should be supported by a justification. We may apply the charge in situations where we consider there is a potential impact.

Forms

You will need to submit the following forms. Please ensure you download the latest version of the forms, as your application will be returned if an old version of the forms is used:

- https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-a-about-you
- https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b2-new-bespoke
- https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b3-new-bespoke-installation
- https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b4-new-bespoke-waste-operation
- https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-f1-opra-charges-declarations

You must read all accompanying guidance when completing the forms to ensure you do not miss anything out.

You must ensure you provide dates of birth for all appropriate people as per Appendix 1 in form Part A. Failure to do so will delay your application being put into our systems. Please note that these details will not be made available on the Public Register.

Declaration

Please ensure the Declaration section is completed by each "relevant person".

- For an application from an individual, a relevant person is the person to be named on the permit.
- For an application from more than one individual, each person who is applying for their name to be on the permit must complete the declaration – you will have to print a separate copy of the declaration page for each additional individual to complete.
- In the case of a company, a relevant person must be an active director/company secretary as listed on Companies House – https://beta.companieshouse.gov.uk/
- For a charity, a relevant person is a key post holder, i.e., chair, chief executive, director or trustee.

Additional information required

The following additional documents and supporting information will be required as part of your application:

Site Plan

Provide a plan clearly showing the site boundary, and plans clearly marking site layout, infrastructure and drainage arrangements

The site plans must identify all of the land on which your activities or waste operations take place. The plans should provide a date and a reference and must be drawn accurately to a defined scale. The outline of the site must be clearly marked. It will be helpful if local features are shown on the plan to help us place the site in its local environment.

Environmental Management System

You must also send a summary of your environmental management system (EMS). Guidance on this is available from Gov.uk:

https://www.gov.uk/guidance/develop-a-management-system-environmental-permits

I would highly recommend that you read our Core Guidance document which will tell you about the permitting process and provide information about your responsibility as a waste operator. Here is the link:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/211852/pb13897-ep-core-guidance-130220.pdf

You might also find useful to read relevant sections of the Sector Guidance Note S5.06 for the recovery and disposal of hazardous and non-hazardous waste, which can be found here:

https://www.gov.uk/government/publications/sector-guidance-note-s506-recovery-and-disposal-of-hazardous-and-non-hazardous-waste

Non-Technical Summary

You need to send us a simple explanation of what the activities or changes are. This should include a summary your operations, a summary of the key technical standards and control measures arising from your risk assessment.

Environmental Risk Assessment

You should describe the environmental risk posed by your proposals. This must take the form of an environmental risk assessment which should follow the methodology set out in 'Risk assessments for your environmental permit' at

https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit

You should consider using our assessment tool to assess your environmental risk. Our assessment tool will inform you when more detailed modelling is required.

Depending on the outcome of your initial environmental assessment, you may be required to undertake detailed modelling of your environmental risk.

You need to assess the risk of emissions to air using the methodology in this guidance https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit

You must carry out detailed modelling assessment on any emissions that you didn't screen out through your air emissions risk assessment. Your modelling report needs to

follow this guidance https://www.gov.uk/guidance/environmental-permitting-air-dispersion-modelling-reports

If you need to assess the risk of hazardous pollutants to surface water, you need to follow this guidance: https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit

If you need to assess the risk from sanitary determinands you should follow the methodology set out in our guidance https://www.gov.uk/government/publications/h1-annex-d2-assessment-of-sanitary-and-other-pollutants-in-surface-water-discharges

If you need to undertake detailed modelling of the risk to surface water you should follow this methodology https://www.gov.uk/government/publications/modelling-surface-water-pollution-risk-assessment

If you need to undertake assess the risk to groundwater you should follow this methodology https://www.gov.uk/guidance/groundwater-risk-assessment-for-your-environmental-permit

Site Condition Report

You should send us a site condition report which covers the area to be permitted. This should be in line with our guidance H5 Site condition report – guidance and templates which includes a template you can use:

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

This needs to include a conceptual site model and identify any relevant hazardous substances on site. Quantitative baseline soil and groundwater monitoring data on the condition of the site should be included or a justification on why this is not required should be provided. You should also consider if you need to undertake soil gas monitoring.

Technical Description and BAT assessment

You will need to provide a technical description of the site, detailing any plant, equipment and infrastructure, including design capacities. You must demonstrate how you will meet any relevant Best Available Techniques. This should include consideration for any relevant Directives, such as Medium Combustion Plant Directive (MCPD), Energy Efficiency Directive and Waste Framework Directive (WFD). https://www.gov.uk/guidance/best-available-techniques-environmental-permits

This should also include details of your operating techniques and the infrastructure you are using to minimise the risk of pollution, including any details of secondary containment (e.g. bunds) used and how this meets any relevant standards. Further guidance on this can be found at https://www.gov.uk/guidance/pollution-prevention-for-businesses#storing-materials-products-and-waste

You should also tell us how you monitor and control the emissions from the site and provide us with the standalone risk assessments/management plans requested below https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#emissions-that-do-not-have-set-limits

Where monitoring is a requirement for your emissions to air, you must provide an assessment of the sampling locations used to measure point source emissions to air. The assessment must use our M1 guidance. Please find attached a summary for reference. Further information can be found in Section 4 of the guidance notes for form Part B3.

Odour Management Plan

We consider you will need to send in an odour management plan with your application. You should follow the H4 guidance on our website: https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#odour

Noise Impact Assessment

If you think that your operation is likely to cause pollution from noise or vibration beyond your site boundary you must provide a noise impact assessment (NIA) based on BS4142:2014+A1:2019 – 'Methods for rating and assessing industrial and commercial sound'.

https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#noise-and-vibration-management-plan

Where your assessment has used calculations or modelling to predict sound pressure levels at receptors, you must follow our guidance on the presentation of your acoustic data: Noise impact assessments involving calculations or modelling.

https://www.gov.uk/guidance/noise-impact-assessments-involving-calculations-or-modelling

Your NIA must be accompanied by a Noise Management Plan based on the results of your NIA.

Noise and Vibration Management Plan

Where your risk assessment cannot screen out impacts from noise and vibration beyond your site boundary you must produce a noise and vibration management plan. The aim of the management plan is to prevent, or where that is not possible minimise, impacts to receptors.

Your noise management plan must take into consideration the outcomes of any noise and vibration impact assessment and provide evidence that appropriate mitigation measures have been taken to control the risks from the activity and operations undertaken on your site.

The Environment Agency have published guidance on appropriate measures and requirements of a management plan to assist you in the preparation of the plans.

https://www.gov.uk/government/publications/environmental-permitting-h3-part-2-noise-assessment-and-control

If you are unsure as to whether a Noise Impact Assessment and Noise Management Plan are required for your proposal please request enhanced pre application advice. We may return the application, and potentially retain part of your fee, if we find a Noise Impact Assessment and Noise Management Plan should have been included as part of your application.

Accident prevention and management plan

You need to include an accident prevention and management plan to cover the proposed activities which considers the requirements of this guidance https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#accident-prevention-and-management-plan

Emissions (Dust) Management Plan

If you will be undertaking storage and treatment of potentially dusty materials you will need to send in an Emissions Management Plan that addresses the risk of dust with your application. This needs to address the aspects listed under 'Emissions that do not have set limits' in our guidance control and monitor emissions for your environmental permit https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#emissions-that-do-not-have-set-limits

Fire Prevention Plans

If you will be storing combustible non-hazardous waste then you are required to submit a Fire Prevention Plan along with your application for assessment.

https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits/fire-prevention-plans-environmental-permits

The Environment Agency has made a template for you to use to prepare your Fire Prevention Plan. The template includes guidance on how to complete the plan. You do not have to use the template to complete your Fire Prevention Plan but we recommend that you do. You can download the template at the link above.

Technical Competence

You will need to send in evidence of appropriate technical competence for the changes you propose. You need to include certificates.

https://www.gov.uk/guidance/legal-operator-and-competence-requirements-environmental-permits

Application Fees

The application fee will be:

Installations activities (hazardous waste):

- 1.16.1.2 – Section 5.3 (a)(ii) Hazardous waste installation – Physico-chemical treatment - £16,001 *(wet waste treatment facility)*
- 1.16.1.3 - Section 5.3 (a)(iv) Hazardous waste installation – Repackaging - £16,001 *(solid waste treatment facility)*
- 1.16.4 - Section 5.6 – Temporary storage of hazardous waste - £1,352 (10% of base fee when there is storage associated with treatment)

Waste activity:

- 1.16.12 – Physical treatment of non-hazardous waste - £7,930

Sub-total: £41,284

The following assessment fees will be applicable unless your risk assessment shows that there is no source of risk or receptor:

Table 1.19 - Charges for plans and assessments		
Ref	Plan or assessment	Charge
1.19.2	Habitats assessment (except where the application activity is a flood risk activity).	£779
1.19.3	Fire prevention 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.	£1,246
1.19.7	Noise and vibration management plan.	£1,246

Total: £41,284 + appropriate charges for plans and assessments

Please note that your application will not be processed until we receive the full application fee payment.

Subsistence Charge

The subsistence charge is going to be:

- 2.16.1 – Hazardous waste treatment – more than one waste stream – installation - £11,168
- 2.16.8 – Treatment and transfer of non-hazardous waste – less than 25,000 tonnes a year - £2,875

Total: £14,043

Link: https://www.gov.uk/government/publications/environmental-permitting-charging-scheme-2019

Please note that a subsistence charge is an annual charge which is based on the type and scale of the activity. Payment of this charge must not be included with payment of an application fee. Subsistence charges are invoiced to operators annually, after a permit is issued. The subsistence charge given above may change if we issue you a permit for an activity of a different type and/or scale to the proposed activities in this pre-application request.

What happens next?

If you submit an environmental permit application then please quote this pre-application reference number: **EPR/PP3406SH/A001**

If the advice above details using the online digital application form, your application can be submitted using this method. If not, please send your completed application documents via email to:

psc@environment-agency.gov.uk

We are not currently processing paper applications as our offices are closed. Any applications submitted via post will be stored at the Permitting Support Centre until we are able to re-open the office. For further information, please check our latest operational update on the Environment Agency website.

Current application timescales

Dealing with the impact of COVID-19

We are following Government advice to manage the risks of Coronavirus to our organisation, to protect the health, safety and wellbeing of our staff and sustain our critical operations.

We are doing all we can to maintain our service, however it may take us longer than usual to respond to you. It is important that you inform us of any applications that are critical to maintain national resilience, national infrastructure and critical environmental protection.

Our current queues are large and we are taking longer than usual to allocate work for duly made checks. Please see the table below for current average queue times.

App type	Current average time to allocation (as of 1 June 2020)
New standard rules	8-10 weeks
New bespoke	18-20 weeks
Admin variation	6-8 weeks
Minor variation	19-21 weeks

Normal variation	21-23 weeks
Substantial variation	21-23 weeks
Transfer	13-15 weeks
Surrender	15-17 weeks
Medium combustion plant (MCP)	19-21 weeks

Disclaimer

The advice given is based on the information you have provided, and does not constitute a formal response or decision of the Environment Agency with regard to future permit applications. Any views or opinions expressed are without prejudice to the Environment Agency's formal consideration of any application. Please note that any application is subject to duly making and then full technical checks during determination, and additional information may be required based on your detailed submission and site specific requirements and the advice given is to address the specific pre-application request.

This advice covers waste and installations activities only. Other permissions from the Environment Agency and/or other bodies may be required for associated or other activities.

This pre-application request is now closed.

Further enquiries resulting from this response must be logged as a new request using the online form:

https://www.gov.uk/government/publications/environmental-permit-pre-application-advice-form

Our basic pre-application service is free and is limited to the information detailed on section 2 of the Environmental permitting charges guidance on gov.uk.

If you need more extensive or technical pre-application advice, you can ask for our enhanced pre-application service. The enhanced pre-application advice is charged at £100 per hour plus VAT. You will need to complete and submit a new online pre-application request to request enhanced pre-application advice.

If you have any questions please find my contact details below.

Yours sincerely,

Nathan Price

nathan.price@environment-agency.gov.uk

Permit Application Supporting Document

Appendix III

Environmental Management System

ENVIRONMENTAL MANAGEMENT SYSTEM

St Michaels Close, Aylesford, Kent, ME20 7XE

Elliot Environmental Drainage Limited

Version:	1.2	**Date:**	06/08/2024		
Doc. Ref:	2499-002-A	**Author(s):**	DY	**Checked:**	EED
Client No:	2499	**Job No:**	002		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

Oaktree Environmental Ltd, Lime House, 2 Road Two, Winsford, Cheshire, CW7 3QZ
Tel: 01606 558833 | E-Mail: sales@oaktree-environmental.co.uk | Web: www.oaktree-environmental.co.uk
REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	13/07/2020	DY		Internal draft
1.1	01/07/2024	IA		Draft for client
1.2	06/08/2024	IA/DY	DY/EED	Updated in response to client comment

CONTENTS

List of Tables

List of Appendices:

Site Information & Key Contacts List

Site Address:	St Michaels Close, Aylesford, Kent, ME20 7XE		
Site Operator:	Elliot Environmental Drainage Limited	**National Grid Ref:**	574503, 159085
CONTACT	**DESCRIPTION**	**OFFICE HOURS**	**OUT OF HOURS**
Elliot Environmental Drainage Limited	Permit Holder	0844 809 9965	tbc
Maidstone Hospital, Hermitage Lane, Maidstone, Kent, ME16 9QQ	Local NHS Hospital (Main)	01622 729000	999
	Accident & Emergency (A&E)	999	999
Dr Pile N R & Partner, White House, Mackenders Lane, Eccles, Aylesford, Kent, ME20 7HX	Local Doctor Surgery (GP)	01622 718558	999 or 112
Kent Police Maidstone Police Station, 7 Lower Stone St, Maidstone, ME15 6LL	Local Police Non-Emergency	0845 113 5000	999 or 112
	Police Emergency	999 or 112	999 or 112
Larkfield Fire Station New Hythe Lane, Aylesford, ME20 6PP	Fire and Rescue Service (in Emergency Dial 999)	01622 692121	999 or 112
Environment Agency Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH	Environmental Regulator	0370 850 6506	0800 80 70 60
Maidstone Borough Council Maidstone House, King Street, Maidstone, Kent, ME15 6JQ	General Enquiries	01622 602000	101, 999 or 112
South East Water Rocfort Road, Snodland, Kent, ME6 5AH	Mains water supplier	0333 000 0002	0333 0000365
Southern Water, Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX	Sewerage	03303030277	999 or 112
Oaktree Environmental Ltd - Lime House, 2 Road Two, Winsford, Cheshire CW7 3QZ	Secondary specialist waste and permitting compliance advisors	01606 558833	N/A

1 General Considerations

1.1 Site Operator/Permit Holder

1.1.1 The site operator is Elliot Environmental Drainage Limited. The company are specialists in the collection and treatment of non-hazardous and hazardous wastewater from site drainage systems and oil water interceptors and road sweepings.

1.2 Relevant Contacts

1.2.1 The contact details for the operator are as follows:

Elliot Environmental Drainage Limited St Michaels Close, Aylesford, Kent, ME20 7XE	**Contact:**	Terry Whitby
	Position:	Site Manager
	Tel:	01303 814478

1.2.2 Oaktree Environmental Ltd have been engaged to act as consultants for Elliot Environmental Drainage Limited to assist in the preparation of this Environmental Management System (EMS). This EMS has been prepared to meet the requirements of The Environmental Permitting (England and Wales) Regulations 2016 and the Environment Agency's Guidance: "*Develop a management system: environmental permits*".

1.2.3 Contact details for Oaktree Environmental are as follows:

Oaktree Environmental Ltd Lime House 2 Road Two Winsford Cheshire CW7 3QZ	**Contact:**	David Young
	Position:	Principal Consultant
	Tel:	01606 558833
	E-mail:	david@oaktree-environmental.co.uk

1.2.4 A full list of relevant contacts (including key emergency contact numbers) are provided in the Site Information & Key Contacts List section in the pre-pages of this document.

1.3 Site Location

1.3.1 The site is located on Land at St Michaels Close, Aylesford, Kent, ME20 7XE as shown on Drawing Nos. 2499-002-02.

1.4 Permit Area/Waste Management Operations

1.4.1 General

1.4.1.1 The permit boundary is outlined in green on Drawing No. 2499-002-02. All references to 'the site' in this EMS shall mean this area and the associated infrastructure, plant and equipment.

1.4.1.2 The EP is required for recovery of hazardous and non-hazardous wastes. This will include the following principal operations:

- Importation of liquid wastes and sludges, including, but not limited to, interceptor wastes and jetting sludges, to be subject to physico-chemical treatment;
- Importation of gulley and road sweepings to be subject to physico-chemical treatment;
- Importation of empty cans and containers which may contain traces of hazardous wastes, to be repackaged and sent on for further recovery/disposal; and,
- Importation of other dry hazardous and non-hazardous wastes and liquid wastes in containers, which will be repackaged and sent on for further recovery/disposal.

1.4.2 Waste Treatment

1.4.2.1 The majority of wastes received on site, up to 89,000 tonnes/annum, will include liquids and sludges which will be subject to physico-chemical treatment. Vehicles arriving at the site will report to offices for waste acceptance checks. Waste will be sampled to ensure it is eligible for acceptance into the site, any unauthorised/negative results will result in wastes being

rejected, whist a positive result will ensure waste acceptance and the vehicle will be directed to the relevant reception area.

1.4.2.2 The wastes to be subject to treatment, i.e. sludges, grits, and liquid waste will be unloaded into the pit and be unloaded using a combination of pumping, tipping or ejection in a controlled manner. There are will be two outlets from the treatment plant, i.e. hazardous and non-hazardous, which are blown through to the relevant tank or plant.

1.4.2.3 The load will be tipped and or washed out into the CDE Hydro max which will contain solid mater such as grits/rags/organics etc. It is worth noting that some solids will enter the conveyor system and be transported to the relevant stockpile.

1.4.2.4 Once the waste is processed through the Hydro tip it will be screened and dewatered through the CDE G:Max which will further separate liquids, sands/grits and organic matter, a rake screen will also be utilized to remove heavy solids as well as a grit screen which is used to further separate solids from liquids. The resultant liquids will be pumped directly into the appropriate hazardous or non-hazardous waste storage tanks which are to be located externally to the main processing building. There will be 3 such storage tanks which each have a capacity of approximately 90,000 – 100,000litres and will temporarily store the liquid prior to it being processed further through wet waste treatment plant.

1.4.2.5 It is worth noting that the reception pit will only ever contain either hazardous or non-hazardous material at any one time to prevent cross contamination of loads. Between reception of the different types of loads, the pit will be emptied and cleared prior to the acceptance of a different waste stream.

1.4.2.6 Once the waste has accumulated within the external tanks it will be discharged into the warehouse building via enclosed HDPE pipework for water treatment and further screening. Water will be pumped through the flocculation unit equipped with sensors linked to a control module and liquids will be treated as required. Water will then flow through the DAF unit where flocculation will take place.

1.4.2.7 Waste sludge will be pumped into the relevant sludge tank. The sludges can be recirculated through the flocculation units or pumped into centrifuge as required. The liquids (non-sludge) will be pumped onward where a carbon filter can be used or air introduced to further separate solids and liquids. The final phase water will flow through a sample chamber and onward to sewer. The solids will be run through centrifuge and into containers.

1.4.2.8 The building will include a Local Exhaust Ventilation (LEV) system, which will extract air, via a series of activated carbon filters for emissions control, with air exhausted via an external elevated flue for dilution and dispersion of residual emissions.

1.4.3 Waste Repackaging Facility

1.4.3.1 A much smaller quantity of wastes will not be subject to treatment and will simply be repackaged and sent on for further recovery or disposal. This will include either dry non-hazardous and hazardous wastes, non-hazardous and hazardous liquid wastes in containers or empty containers such as paint tins and bleach bottles which may contain residues of hazardous wastes which will be stored within a bunded storage area prior to being repackaged for export for further recovery or disposal at a suitably licenced facility.

1.5 Hours of Operation

1.5.1 The site will be open during the following hours for the delivery and receipt of waste on site; including depositing, sorting, moving, storing and removing waste:

Monday to Friday	24 hours
Saturdays	24 hours
Sundays and Bank Holidays	No operations

1.5.2 The only activities on site which will be permitted outside of these hours are maintenance works, situations where waste is brought in for deposit in emergency situations and general office use.

1.6 Waste Storage, Types and Quantities

1.6.1 The locations of the operational and storage areas are shown on Drawing No. 2499-002-03. The nature of operations at treatment facilities means that certain operational areas may change depending on processing requirements.

1.6.2 The waste types handled on site will be commercial and industrial wastes as defined in the Controlled Waste (England and Wales) Regulations 2012 and Section 75 of the Environmental Protection Act 1990. The site will accept up to 90,000 tonnes/annum of non-hazardous and hazardous wastes which will predominantly include liquids and sludges as well as a much smaller amount of solid wastes.

1.6.3 The site will only accept waste that is capable of being processed by the onsite treatment plant, or suitable for repackaging. If the maximum storage capacity of the site is reached, then no further waste will be accepted until waste can be removed from the site and taken to a suitably permitted or exempt site.

1.7 Exempt Activities

1.7.1 Activities which are outside the scope of the EP for the site [listed in Schedule 3 of The Environmental Permitting (England and Wales) Regulations 2016] will not be carried out at the site. If this were to occur the relevant details would be registered with the EA prior to commencement.

1.7.2 Registration - Current and future exemption notifications and register entries will be held in the site office. Registered exemptions are valid for a period of 3 years. If the activity is to be carried on after 3 years, a renewal will be submitted to the EA.

1.7.3 Any waste which is stored under exemptions will be clearly labelled on the site plan and kept separate from those wastes on site which are permitted.

1.8 Staffing and Management

1.8.1 The site will open for the deposit of waste or for other essential operations during the hours listed in Section 1.5. The table below details the minimum staff numbers required when the site is open for the reception of waste.

Table 1.1 – Staffing numbers and responsibilities

Position	Employees	Responsibilities
Site Manager	1	Ensuring that the site is being operated in accordance with the Environmental Permit
WAMITAB Holder	1	Ensuring that the site is being operated in accordance with the Environmental Permit
HSEQ Manager	1	Health and Safety management
Stores manager	1	Ensuring that the site is being operated in accordance with the Environmental Permit
Lead plant operator	1	Ensuring that plant is being used correctly. Waste handling/processing, reception, and plant operation.
Machine / Plant Operators / General Operatives	>1	Waste handling/processing, reception, and plant operation.

1.9 Health and Safety

1.9.1 All operations on site will be carried out in accordance with the relevant requirements of the Health and Safety at Work Act 1974. Conditions of site use for employees, visitors and contractors are shown in Appendix IV. These conditions will be shown to all site users and must be signed prior to using the site. Anyone refusing to comply with the conditions of use will be asked to leave the site.

1.10 Fit and Proper Persons

1.10.1 The site's Technically Competent Manager (TCM) will provide the required attendance time at the facility as required by guidance periodically issued by the EA. A copy of TCM's Certificate of Technical Competence (COTC) will always be made available in the site office.

1.10.2 The company, through the TCM, will ensure that a nominated deputy is sufficiently trained and familiar with the EP and this EMS document in addition to all relevant company procedures who, in the absence of the TCM, will act the competent person. If either the

TCM or deputy is changed, the EA will be informed of the change and the relevant details of the replacement as soon as possible.

1.11 Convictions

1.11.1 At the time of application, neither Elliot Environmental Drainage Limited nor any of the relevant people within the company had been convicted of a relevant offence.

2 Site Engineering and Infrastructure

2.1 Site Description

2.1.1 The site is within an industrial area and contains a large scale industrial building and site drainage system.

2.1.2 The site is located within Maidstone Borough Council administrative area located off St Michaels Close, Aylesford.

2.1.3 The location of the operational, treatment and storage areas are shown on Drawing No. 2499-002-03.

2.2 Access and Parking

2.2.1 The site is located as shown on Drawing No. 2499-002-03 and access to the site is gained via a purposed built access off St Michaels Close.

2.2.2 The site has ample parking for site staff, visitors and HGVs with 13 parking spaces provided as shown on the plan.

2.3 Site Office

2.3.1 The site office is located as shown on Drawing No. 2499-002-03. The documents listed below will be retained in the site office.

Documents to be retained in site office
The Environmental Permit (original & any subsequent variations)
This Environmental Management System (EA agreed document)
Current site diary (to record all inspections/visitors to the site)
Environment Agency inspection (CAR) forms
In-house inspection sheets/recording forms
Duty of care transfer notes (for 2 years minimum)
Duty of care product notes [(aggregates/topsoil (for 2 years minimum)]
Hazardous waste consignment notes (rejected waste, etc., kept for 5 years)
Waste delivery tickets
Accident book (& 1st aid kit)

2.4 Weighbridge

2.4.1 All incoming vehicles are required to report to the site office. The details of the load will be recorded, and the transfer note and company documentation will be further checked by the operator to ensure that the load is acceptable at the site. The weight of all loads will be recorded using the weighbridge or agreed WRAP conversion weights for loads where the weight is not known upon receipt at the site.

2.5 Notice Board and Signs

2.5.1 A notice board will be erected at the site entrance displays the following information:

- The site name and address.
- The name of the permit holder and operator.
- The Environmental Permit number and accompanying statement stating that the site is permitted by the Environment Agency.
- Environment Agency contact details, Emergency No. 0800 80 70 60 and
- General Enquires No. 03708 506 506.
- Operator's "out of hours" emergency contact details
- Operating hours.

2.5.2 Additional signs are displayed around the site for operational / health & safety purposes. All staff and visitors will be required to comply with the requirements of all signs whilst on site.

2.6 Site Security

2.6.1 The site will be appropriately secured with fencing and Close Circuit Television (CCTV). The site also benefits from security gates which will be locked when the site is closed. As part of the required secondary containment, the site is also required to construct concrete walling around sections of the facility which also provide additional security. Site infrastructure is detailed on Drawing No. 2499-002-03.

2.6.2 The site security will be inspected on a daily basis and any defects which impair the effectiveness of the security will be repaired to the same or better standard within a suitable timescale. All repairs will be noted on the site diary repaired as soon as practically possible. The checklist in Appendix II provides further information.

2.7 Fuel Storage

2.7.1 The location of fuel storage on site (if applicable) will be shown on Drawing No. 2499-002-03 and procedures for fuel storage on site are as follows:

- Tanks will be surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.
- All pipework and associated infrastructure will be enclosed within the bund.
- A lock will be fitted to the tank valve to prevent unauthorised operation.
- All valves and gauges on the bund will be constructed to prevent damage caused by frost.
- No combustible waste will be stored within 6 metres of the tank.

2.7.2 The tank will be clearly marked showing the product within and also its capacity.

2.8 Secondary Containment

2.8.1 The site will be required to implement secondary containment to prevent pollution to water or land and minimise leakage and spillage from the primary container. The proposed

secondary containment considers the industry standards detailed in CIRIA guidance C736 – Containment system for the prevention of pollution.

2.9 Rejected Waste

2.9.1 Any waste which is rejected will be stored in a quarantine skip/tank and removed from the site when full. The location of these may vary as operating conditions permit (i.e. to permit the loading of rejected wastes but clear labelling and management control will ensure its use as specified). Rejected waste will be recorded on form EED/RF/2 or similar.

2.10 Drainage

2.10.1 The drainage arrangements for the site are clearly shown on Drawing No. 2499-002-03 and summarised as follows:

a) All drainage from the main building's roof, access road, car parking areas and other concreted areas will all drain to interceptors and eventually discharge into the existing sewer system under a trade effluent consent.
b) All foul drainage directly links to the foul sewer system.
c) The inside of the main building is currently surfaced entirely with impermeable concrete surfacing and access points are sealed to prevent ingress of rainwater and egress of contaminated fluids.

2.11 Vehicles, Plant and Equipment

2.11.1 Waste will be handled using the plant listed in the table below. Only trained operators will be permitted to drive/operate the plant listed below. Any changes to the list will be notified to the Environment Agency prior to implementation.

Table 2.1 – List of Plant & Equipment

Item	Number	Function
Forklift trucks	1	Waste loading/movement/sorting
Road sweeper	1	Road sweeping

Item	Number	Function
Telehandler	1	Waste loading/moving/sorting
Loading shovel	1	Movement/loading of materials
Screening plant	2	Degritting and dewatering of wastes
Flocculator	1	Treatment of water based wastes
Centrifuge	1	Separation of solid and liquid wastes
Carbon filters/reverse osmosis plant	1	Cleaning of water
Odour Abatement System	1	Control of Volatile Organic Compound (VOC) emissions and associated odour from main processing building
Pumps	Multiple	Automated transfer of materials throughout process

Note: The plant/equipment on site may vary and additional equipment may be hired-in to cope with busy periods, larger jobs or jobs with specific requirements.

2.12 Preventative Maintenance

2.12.1 All mobile and fixed plant on site including vehicles in the fleet are subject to annual manufacturer maintenance to ensure proper working order in the form of service contracts.

2.12.2 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis i.e. daily, before, during and 1 hour at the end of each working day using a checklist similar to that in Appendix II to ensure the following:

- Machinery is mechanically sound for use and no presence of black fumes or trailing liquids visible prior to use or following shutoff of plant/equipment.
- All plant engines and/or generators (if applicable) will be powered-down and completely shut off prior to cessation of operations on any given day.
- Plant which is not in use for any extended period is stored at least 6 metres from waste.
- All plant and equipment vehicles are fitted with fire extinguishers in the cab. Rubber strips are not considered appropriate as they are usually removed via uneven and bumpy ground.
- Dust from processing operations on site can settle throughout the working day onto processing plant, plant exhausts and engine parts so a fire-watch will be implemented

after cessation of works and equipment powered down for 1 hour each day to remove any dust/fluff using brushes, hoses etc... Any build of dust/fluff will be removed from the equipment and deposited into a container to await removal from site and site management informed.

2.12.3 A ‘no-idling’ policy is in place which ensures that engines are switched off when vehicles or plant are not in use. This policy will ensure that tail pipe emissions are significantly reduced.

3 Site Operations

3.1 Preliminary Procedures

3.1.1 Guidance will be given by the site management to all employees, sub-contractors, other waste carriers and customers regarding the waste types and operations which are acceptable at the site i.e. a copy of Appendix III of this document. The site will be used for the acceptance, storage and processing of waste using Elliot Environmental Drainage Limited's own vehicles/contracts and also for third-party users/hauliers whose details would be checked prior to the delivery/collection of waste.

3.1.2 The procedures below would be followed prior to the receipt of waste on site.

3.1.3 When a driver employed by the permit holder arrives at the waste producers premises he/she will inspect the load for conformity with relevant regulations and safety procedures.

a) If the load is satisfactory the driver will sign the relevant paperwork (Duty of Care transfer note/delivery ticket) and remove the load from the premises.
b) If the load does not meet the description stated on the controlled waste transfer note the customer is advised to check the note and give a more detailed description of the waste.
c) If the more detailed description of the waste reveals that the waste is not/permitted at the recycling centre then the customer is advised that the waste must be taken to another site which is appropriately permitted to accept the waste(s).
d) If further instructions are needed the driver may also report back to the site manager.
e) Where it is suspected that the details given on the transfer note are incorrect the EA may be contacted for advice.

3.1.4 If further instructions are needed the driver may also report back to the site manager.

3.1.5 Loads will not be accepted on site if the pre-acceptance information has not been collected, or if the waste may have adverse effects on the process.

3.2 BAT / Pre-acceptance Waste Procedures

3.2.1 The site will use Best Available Techniques (BAT) for the recovery/disposal of waste in accordance with Commission Implementing Decision (EU) 2018/1147.

3.3 Checking in & Inspection of Loads

3.3.1 All incoming vehicles are required to report to the site office where their credentials can be checked prior to unloading. The details of the load will be recorded, and the duty of care note/company documentation will be further checked by the operator to ensure that the load is acceptable at the site prior to the vehicle proceeding to the relevant loading/unloading area or tank. Any deviation from the procedures or problems with any loads will be reported to the site manager and may result in tipping facilities being suspended for the offending company. Loads which are not acceptable within the above terms will be rejected and returned to the producer.

3.3.2 All vehicle drivers must report to the site office upon arrival at the site. Each load will be recorded, and its contents inspected.

3.3.3 If non-compliant waste is discovered before unloading, the load will not be accepted, and the driver will be informed to leave the site and dispose of the material at alternative permitted facility. In cases where the presence of unauthorised or unusual waste is discovered during initial inspection, the EA will be contacted immediately to agree a course of action.

3.3.4 If the load is acceptable the driver will be instructed to unload it within the relevant area of the facility.

3.4 Waste Acceptance Procedure

3.4.1 All incoming vehicles upon arrival are required to report to the person in charge of waste acceptance at the site. The details of the load will be recorded, and the duty of care note/company documentation will be further checked by the operator to ensure that the

load is acceptable at the site, including a visual check prior to the vehicle proceeding to the tipping area. Any deviation from the procedures or problems with any loads will result in tipping facilities being suspended for the offending company. Loads which are not acceptable within the above terms will be rejected.

3.5 Waste Treatment Operations and Process

3.5.1 The majority of wastes received on site, up to 89,000 tonnes/annum, will include liquids and sludges which will be subject to physico-chemical treatment. Vehicles arriving at the site will report to offices for waste acceptance checks. Waste will be sampled to ensure it is eligible for acceptance into the site, any unauthorised/negative results will result in wastes being rejected, whist a positive result will ensure waste acceptance and the vehicle will be directed to the relevant reception area.

3.5.2 The wastes to be subject to treatment, i.e. sludges, grits, and liquid waste will be unloaded into the pit and be unloaded using a combination of pumping, tipping or ejection in a controlled manner. There are will be two outlets from the treatment plant, i.e. hazardous and non-hazardous, which are blown through to the relevant tank or plant.

3.5.3 The load will be tipped and or washed out into the CDE Hydro max which will contain solid mater such as grits/rags/organics etc. It is worth noting that some solids will enter the conveyor system and be transported to the relevant stockpile.

3.5.4 Once the waste is processed through the Hydro tip it will be screened and dewatered through the CDE G:Max which will further separate liquids, sands/grits and organic matter, a rake screen will also be utilized to remove heavy solids as well as a grit screen which is used to further separate solids from liquids. The resultant liquids will be pumped directly into the appropriate hazardous or non-hazardous waste storage tanks which are to be located externally to the main processing building. There will be 3 such storage tanks which each have a capacity of approximately 90,000 – 100,000litres and will temporarily store the liquid prior to it being processed further through wet waste treatment plant.

3.5.5 It is worth noting that the reception pit will only ever contain either hazardous or non-hazardous material at any one time to prevent cross contamination of loads. Between reception of the different types of loads, the pit will be emptied and cleared prior to the acceptance of a different waste stream.

3.5.6 Once the waste has accumulated within the external tanks it will be discharged into the warehouse building via enclosed HDPE pipework for water treatment and further screening. Water will be pumped through the flocculation unit equipped with sensing process linked to a control module and liquids will be treated as required. Water will then flow through the DAF unit where flocculation will take place.

3.5.7 Waste sludge will be pumped into the relevant sludge tank. The sludges can be recirculated through the flocculation units or pumped into centrifuge as required. The liquids (non-sludge) will be pumped onward where a carbon filter can be used or air introduced to further separate solids and liquids. The final phase water will flow through a sample chamber and onward to sewer. The solids will be run through centrifuge and into containers.

3.5.8 The building will include a Local Exhaust Ventilation (LEV) system, which will extract air, via a series of activated carbon filters for emissions control, with air exhausted via an external elevated flue for dilution and dispersion of residual emissions.

3.5.9 A much smaller quantity of wastes will not be subject to treatment and will simply be repackaged and sent on for further recovery or disposal. This will include either dry non-hazardous and hazardous wastes, non-hazardous and hazardous liquid wastes in containers or empty containers such as paint tins and bleach bottles which may contain residues of hazardous wastes which will be stored within a bunded storage area prior to being repackaged for export for further recovery or disposal at a suitably licenced facility.

3.6 Record Keeping

3.6.1 Elliot Environmental Drainage Limited use detailed waste transfer and product notes in paper and electronic form to ensure compliance with the Waste Duty of Care Code of Practice - March 2016 (Section 34(9) of the Environmental Protection Act 1990). The following points detail the correct information required in order to comply with the Waste Duty of Care Code of Practice which the operator will provide on all documentation:

- a written description of the waste which has been agreed and signed by the operator and the next holder. The description is part of the waste information the operator will provide.
- a statement confirming that the operator has fulfilled the duty to apply the waste hierarchy as required by regulation 12 of the Waste (England and Wales) Regulations 2011 (see Waste Hierarchy Guidance for England and Wales)
- the description of the waste is accurate and contains all the information required to ensure the lawful and safe handling, transport, treatment, recovery or disposal by subsequent holders, including classification of the waste by using the appropriate codes (referred to as the List of Wastes (LoW) or European Waste Catalogue (EWC)) - Appendix A of the Waste Classification Technical Guidance provides a list of the codes as well as advice on how to assess and classify waste.
- the quantity and nature and whether it is loose or in a container, if in a container, the type of container
- the time and place of transfer
- the SIC code of the transferor (current holder of the waste)
- the name and address of the transferor and transferee (person receiving the waste) and their signatures (the signature can be electronic as long as an enforcement officer can view it)
- the capacity in which the transferor and transferee are acting (e.g. as a producer, importer or registered waste carrier, broker or dealer) and their relevant authorisation to act in that capacity (e.g. their permit number or registration number)

3.6.2 For non-hazardous waste this will be done by using:

- a paper WTN and form to fill in or alternative documentation e.g. an invoice, as long as it contains all the required information.
- a season ticket which is a single waste transfer note that covers a series of non-hazardous waste transfers. The season ticket will last up to one year and be used for regular transfers of the same type of non-hazardous waste with the same carrier. If the operator has several sites serviced by the same carrier with the same types of waste collected, these can be listed in a schedule to the season ticket. The operator will keep a record of the collection times and the quantity of waste.

3.6.3 A waste information note will not be required for non-hazardous waste if the waste holder does not change on the transfer of waste e.g. the waste is moved to other premises belonging to the same business. However, it is best practice that the business understands who has responsibility for that waste and a record is kept of internal transfers for audit purposes.

3.6.4 **Hazardous waste:** The site be accepting hazardous waste into the site, this will be done so using a fully completed hazardous waste consignment note and sent to a suitably permitted site, the records of which will be kept for 5 years.

3.6.5 A summary of waste types and quantities deposited at and removed from the site and origin and destination details are then forwarded to the EA, with submission due within one month of the end of each quarter as below:

a) Quarter 1: January to March (due on or before 30th April)
b) Quarter 2: April to June (due on or before 31st July)
c) Quarter 3: July - September (due on or before 31st October)
d) Quarter 4: October - December (due on or before 31st January of the following year)

3.6.6 Outcomes of inspections of waste types, transfer/treatment areas, storage areas, drainage, infrastructure etc., will be recorded on the site inspection form and detailed comments will be entered into the site diary (including action taken or proposed). EED/RF/4,8 (or similar).

3.6.7 Visitors to the site will sign the sites visitor's book located in the site office upon arrival stating the purpose of their visit and whom they represent.

3.7 Management Techniques

3.7.1 All measures necessary to achieve a high level of protection of the environment and to ensure that the site is operated in accordance with this EMS and EP conditions will be strictly adhered to.

3.7.2 The manner in which the facility is managed is a critical element in ensuring emissions from the site operations are minimised. Therefore, management of this facility will ensure:

a) staff are competent to manage and operate the facility i.e. fit and proper persons;
b) waste acceptance procedures are in place;
c) appropriate storage and handling procedures are in place;
d) waste/product despatch procedures are in place;
e) procedures and control techniques in place to minimise potential emissions to air, land and water;
f) there is an EMS, i.e. this document, in place to ensure standards are maintained, including incidents and complaints management procedures;
g) a communication programme is in place; and,
h) a health and safety programme is in place and is coherently conveyed to all staff and rigorously enforced throughout the whole of the organisation.

3.8 Site Closure Plan

3.8.1 In the event that the site ceases to operate as a waste transfer/treatment facility as set out in the site's EP, the following steps will be followed to achieve site closure:

a) Contact the EA to advise the Environment Officer(s) that the site is planned to cease / has ceased the acceptance of wastes under the permit.

b) The amount of residual processed and unprocessed waste on site will be assessed by the TCM to set a timetable for the final processing and timely removal of waste from site.

c) Following removal of all waste, plant and machinery from site a Site Investigation will be undertaken to ascertain the ground conditions of the land to which the site relates.

d) A surrender application will then be submitted to the EA for determination.

4 Environmental Control, Monitoring And Reporting

4.1 Emissions Monitoring

4.1.1 The table below outlines emissions monitoring arrangements, in accordance with BAT. This is for emission point A1, which serves the odour abatement system serving the main process building

Table 4.1 – Emission Limits and Monitoring Requirements – Emission Point A1

Pollutant	Emission Limits ($mg.Nm^{-3}$) Expressed at Reference Conditions of 273.15K, 101.3kPa, dry gas	Monitoring Frequency	Monitoring Method
Hydrogen Chloride (HCL)	5	Every six months	Manual extractive test - EN 1911 or EN 16429
Total Volatile Organic Compounds (TVOC)	20	Every six months	Manual extractive test - EN 12619 or EN ISO 13199

4.2 Breakdowns and Spillages

4.2.1 In the event of breakdown of the loading plant, an alternative machine will be brought on site until it is repaired. If an alternative machine cannot be used, then waste will be stored securely until the plant is repaired. The repair will be carried out at the most convenient location with absorbents used to clear oil or fuel spillages.

4.2.2 All site surfaces will be inspected daily when the site is in operation. Debris will be swept as required and placed in a skip for disposal to a suitably permitted site.

4.2.3 Any spillages of fuel/oil will be cleared immediately by depositing sand or absorbents on the affected area. The sand or absorbents will be placed in a skip to be taken to a suitably permitted site for disposal. All spillages of waste and windblown litter will be cleared by the end of the working day in which they occur. Spillage clearance procedures are detailed in Section 5.3.

4.2.4 All wastes liable to give rise to contamination will be removed from the site if the site is not secure or if operations cease or are temporarily suspended.

4.3 Site Inspections and Maintenance

4.3.1 The inspection frequencies for maintenance/housekeeping are listed on record form EEDL/RF/4. The inspection form will be completed by a person who is familiar with the requirements of the EMS and EP for the site. All details of defects, problems and repairs carried out will be recorded on the form on the day that each event occurs. Detailed comments may also be recorded in the site diary. All repairs will be carried out within 5 working days unless agreed otherwise with the EA.

4.3.2 Any major defects found during the daily site inspection which are likely to lead to a breach of permit conditions will be recorded on the form EEDL/RF/4 with repairs/solutions being carried out by the end of the working day in which they are found, where possible. If a repair is not possible by the end of the working day and a potential breach of permit conditions or environmental containment may occur, the EA will be contacted to agree a suitable timescale for repair.

4.3.3 Essential spares for plant maintenance are kept on site.

4.4 Control of Mud and Debris

4.4.1 Vehicles will be visually inspected before exit to check that loads are safe and that no mud is carried out onto the public highway network from the wheels or bodies of HGVs. Visual inspections of the vehicle running surfaces at the site will be carried out daily (see EEDL/RF/4), however, staff will report any problems with mud or debris on the site roads immediately to the site manager.

4.4.2 The deposit of material on the access road or public highway will be treated as an emergency and will be cleared immediately by the operator using either a brush and shovel or vacuum tanker/road sweeper if necessary.

4.5 Control of Dust

4.5.1 Due to the nature of wastes accepted at the site being predominantly liquid based, the risk of dust is low/negligible.

4.5.2 Site operatives will continuously monitor dust emissions whilst the site is in operation and will report back to the site supervisor for advice if required. The site manager will make a formal visual inspection of dust emissions at least three times per day. Results of monitoring will be entered into the site diary/record forms.

4.6 Odour Control

4.6.1 The site will be operated in accordance with an approved Odour Management Plan (OMP) which is a stand-alone document dealing with the prevention and mitigation of odour related issues. Please refer to the OMP as the main site management document relating to this issue, document ref: 2499-002-D.

Odour Abatement System

4.6.2 The building will include an extraction system, which will extract air, via a series of activated carbon filters for emissions control, with air exhausted via an external elevated flue for dilution and dispersion of residual emissions.

4.6.3 The extraction system has been designed to extract from a negative pressure environment. The site proposes to install the Nodour Hi-Flo 'twin bed' activated carbon system which is utilised in combination with an extraction fan and integral particulate pre-filter bed to protect carbon media. The extracted air will be collected via a duct system and routed to the main feed stock area and passes through a carbon adsorption unit prior to being discharged via the proposed stack. The above is detailed on the site layout plan (Drawing No. 2499-002-03).

4.7 Litter Control

4.7.1 Given the nature of wastes accepted at the site the risk of litter is low/negligible.

4.7.2 Daily inspections for litter will be carried out for the presence of windblown litter and operatives will be instructed to collect the litter and place it in a skip for disposal/recovery before the end of the working day. In any event, all light waste will be placed in a designated skip/container before the end of the working day. Regular checks of the areas immediately beyond the site boundary will be carried out by site operatives.

4.8 Control of Pests, Birds and other Scavengers

4.8.1 It is unlikely that vermin will present a problem, due to the waste types to be handled at the site, but a recognised pest control contractor will be brought in within 48 hours if any problems are encountered. The site will be inspected daily for the presence of vermin and the results of the inspection noted in the site diary or site inspection form.

4.9 Control and Monitoring of Noise & Vibration

4.9.1 The site will be operated in accordance with a standalone noise and vibration management plan (Document Reference 2499-002-NVMP) which has been produced for the site and will ensure the noise levels at the site are managed appropriately by identifying: the likely sources of noise arising from the development; and, the actions to be taken / procedures to be followed or planned in order to prevent or minimise noise levels.

4.10 Point Source Emissions Monitoring

4.10.1 The emission limits which apply and monitoring requirements are outlined in the table below for emission point A1.

Table 4.2 – Emission Limits and Monitoring Requirements – Emission Point A1

Pollutant	Emission Limits ($mg.Nm^{-3}$) Expressed at Reference Conditions of 273.15K, 101.3kPa, dry gas	Monitoring Frequency	Monitoring Method
HCL	5	Every six months	Manual extractive test - EN 1911 or EN 16429
TVOC	20	Every six months	Manual extractive test - EN 12619 or EN ISO 13199

4.11 Complaints Procedure

4.11.1 All complaints are recorded on form EEDL/RF/7 and will include a record of the complaint, particulars of the complainant and details of any action taken to alleviate the problem.

5 Emergency & Contingency Procedures

5.1 General

5.1.1 In addition to obligations imposed by RIDDOR '13 (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013) the permit holder will notify the EA of any serious injuries to employees of Elliot Environmental Drainage Limited, other site users or members of the public arising as a result of operations on site. Minor injuries such as cuts and grazes etc. will be recorded in the accident book on site. Separate procedures will be used for different types of emergency. An emergency at the site is defined by the site management as follows:

"Any incident which is likely to result in harm to human health or pollution of the environment or serious breach of permit conditions and serious detriment to the amenities of the locality."

5.1.2 For all emergency situations, the deposit of any further waste will be suspended where necessary to allow action to be taken safely. If necessary, staff and other users of the site will be evacuated to an area which is a safe distance away from the hazards. Staff handling the emergency will be provided with and trained to use the necessary PPE (personal protective equipment) unless the manager instructs them that the hazard is too severe and outside help is needed from the emergency services or specialist waste contractors. A visitor's book will be kept to check who is on site at all times.

5.2 Fire

5.2.1 No waste will be burnt on site other than in plant specifically designed for the purpose and in accordance with the relevant statutory instruments. In the event of a fire occurring on site, the operator/site supervisor will exercise his judgement and extinguish the fire with the water hose or suitable fire extinguisher and/or call the fire service for assistance. Any fires will be reported to the EA on the working day that they occur. All staff will be evacuated

from the site if necessary. Smoking is not permitted on site. Firefighting residues will be disposed of to a permitted waste management facility.

5.2.2 For quick reference, the following actions will be taken when fire is detected or suspected (Site operatives):

a) DON'T PANIC
b) RAISE THE ALARM (IF NOT DONE SO ALREADY)
c) NOTIFY THE SITE MANAGER (IF SAFE TO DO SO)
d) **DO NOT TRY TO TACKLE THE FIRE YOURSELF UNLESS YOU ARE TRAINED IN DOING SO AND YOU ARE SURE OF THE NATURE OF THE FIRE**
e) LEAVE THE USING THE MAIN ACCESS GATES AS QUICKLY AND AS ORDERLY AS POSSIBLE
f) ASSEMBLE AT THE SPECIFIED FIRE ASSEMBLY POINT WHICH IS LOCATED BY THE SITE ACCESS GATES.
g) THE SITE MANAGER OR DELEGATED OPERATIVE WILL BE IN CHARGE OF CALLING THE EMERGENCY SERVICES ON 999 AND ENSURING THAT ALL PERSONS WHO WERE WORKING ON THE SITE OR WHO SIGNED IN TO THE VISITOR'S BOOK ARE ASSEMBLED SAFELY
h) INFORM ALL NEIGHBOURING PREMISES WHO ARE LIKELY TO BE AFFECTED
i) INFORM THE ENVIRONMENT AGENCY
j) DO NOT RETURN TO THE SITE UNTIL YOU HAVE BEEN GIVEN THE ALL CLEAR BY THE EMERGENCY SERVICES AND THE SITE MANAGER

5.3 Spillages

5.3.1 Fuels and liquids which are stored on site will be contained within a bunded receptacle/container to contain any primary leaks and benefit from further secondary containment. If any oil and vehicle maintenance chemicals are kept on site, they will be stored securely. In the event of a spillage a spill containment kit (absorbent pads, booms or granules) will be used to prevent further spillage and the contaminated absorbents placed in a skip for disposal to a suitably permitted facility.

5.3.2 All site surfaces will be inspected daily for the presence of spillages when the site is in operation. Debris will be swept as required and placed in a skip for further processing on site and sent to a suitably permitted site.

5.3.3 Any wastes which would be classified as having the potential to cause polluting runoff are stored within the concrete area which is a sealed drainage system.

5.3.4 All wastes liable to give rise to contamination will be removed from the site within an EA agreed timescale.

5.4 Breakdowns

5.4.1 In the event of plant breakdowns, alternative plant will be sourced until the existing plant is repaired to prevent potential over stockpiling of waste. If an alternative plant cannot be used then waste will be stored securely until the plant is repaired and if necessary, waste will be diverted to an alternative site. The repair will be carried out at the most convenient location with absorbents used to clear oil or fuel spillages; most likely on the concrete surface.

5.4.2 Essential spares for plant maintenance are kept on site to ensure a repair can be carried out efficiently.

5.5 Adverse Reactions

5.5.1 The majority of wastes to be accepted do not present risk of adverse reactions. Any wastes accepted which have the potential to react and create adverse reactions will be stored in accordance with the relevant health and safety requirements and having regard to relevant hazards. This is potentially relevant to a very small quantity of wastes which may be accepted within the repackaging area.

5.6 Staff Shortages

5.6.1 In the event of unforeseen staff shortages arising from illness, suspension or no shows, the operator will make a judgement whether to reduce the number of incoming loads and divert material to an alternative site. The operator will then seek further employment within a timely manner to ensure the site can continue to operate at its required capacity.

5.7 Adverse Weather Conditions

5.7.1 **High winds** – Operations will be predominantly undertaken within buildings. Therefore, high winds will not present a hazard to the operation of the process.

5.7.2 **Poor visibility** - Operations will be predominantly undertaken within buildings. Therefore, poor visibility will not present a hazard to the operation of the process.

5.7.3 **Droughts / warm weather** – Due to the nature of loads and how they are delivered, loaded, and unloaded at the site it is not anticipated that droughts or warm weather would have an impact on the operations.

5.7.4 **Long periods of rainfall or flood events** – Due to the site's concrete surface there is a low-risk of mud tracking off site. Vehicles will undergo a stringent check and vehicle chassis would be sprayed using hoses to reduce the risk of mud tracking off site. If these measures aren't ample following inspections or complaints, the operator would source a road sweeper to clear the mud/debris from the road until weather conditions improve.

5.7.5 The operator will set up a notification alert with the Met Office to receive prior notifications of the above unforeseen adverse weather conditions to ensure mitigation can be put in place prior to the event. The site may be forced to close during events which could cause a significant risk to staff, human health or the environment.

5.8 Operational Failure

5.8.1 The manager will be contacted by staff in the event of any operational failure such as the breakdown of plant, systems or equipment and will decide whether operations are to continue or be suspended prior to corrective action being taken. Serious operational failures, which result in the closure of the site, will be recorded in the site diary.

5.9 Bomb Scare

5.9.1 In the unlikely event of a bomb scare, the site will be evacuated and the police contacted. The police will then assume control of the site until the threat has been verified or the device defused and removed. The EA will be kept informed of the events on site.

6 Adapting to climate change & weather conditions

6.1 Climate Change

6.1.1 The Met Office UK Climate Projections (UKCIP) has developed scenarios of climate change, which are summarised as:

- Warmer, wetter winters
- Hotter, drier summers
- Increased frequency and intensity of extreme weather (storms, droughts, intense downpours)

6.1.2 Reflecting these, the UK Climate Change Risk Assessment (CCRA) identifies a number of priority risks and opportunities. The likely direct climate change-related threats that can be considered to be of most relevance to minerals planning and management are:

- increases in the probability and severity of flooding (fluvial, groundwater, surface);
- exposure to high temperatures and heatwaves; and
- shortages in availability of water.

6.2 Flood Risk/Increased Rainfall

6.2.1 The site is located within a Flood Zone 1 which is classified as having the lowest probability and risk of fluvial flooding.

6.2.2 The site is located on previously developed land comprising a concrete pad and buildings. All water (surface and rainwater) drains are as detailed in this EMS.

6.2.3 Therefore, it is considered that the site is not at risk from flooding and would not increase the risk of flooding elsewhere.

6.3 High Temperatures and Heatwaves

6.3.1 Due to the nature of loads accepted at the site and the method in which they are delivered, handled and stored; dry weather periods will not increase the risk of dust.

6.4 Availability of Water

6.4.1 Water would be used as part of the process. Mains water will typically be used for this purpose. Water is not typically required to be used for any dust suppression purposes.

6.5 Weather Conditions

6.5.1 The site will be set up to receive weather alerts from the Met Office for the following weather conditions which could cause a potential complaint off site or potential breach of permit:

i) Prolonged periods of heavy rainfall causing mud and surface water ponding, causing odour.
ii) High winds creating a risk of litter and dust escaping beyond the site boundary.
iii) Droughts or periods of hot weather which could lead to water shortages, hosepipe bans
iv) Dense fog leading to poor visibility causing accidents.

6.5.2 The site will install the following preventative measures to ensure the above do not hinder operations:

HEAVY RAINFALL

- Vehicles exiting the site will undergo a more thorough check to ensure mud is not tracked off site.

- Should long periods of rainfall be likely, the site may consider hiring (as a result of daily inspections) a third-party road sweeper to cover the wet period to ensure surfaces are swept thoroughly throughout the day.

HIGH WINDS

- Due to the nature of loads and how they are delivered, loaded, and unloaded at the site, high winds (>30mph) will not impact the operations.

DROUGHTS/WARM, DRY WEATHER

- Due to the nature of loads and how they are delivered, loaded, and unloaded at the site it is not anticipated that droughts or warm weather would have an impact on the operations.
- In extreme cases such as a hosepipe ban or water shortage, the site will ensure there is additional water available to ensure the process can still function correctly.

DENSE FOG (POOR VISIBILITY)

- The site will reduce operational intensity in conditions of poor visibility such as dense fog to reduce the risk of vehicle and tank collisions or other potential accidents.

6.6 Conclusion

6.6.1 The options to mitigate and adapt to climate change are also limited. The options identified in this section are considered to be proportionate, practicable and deliverable and it is considered this site would not be affected by climate change or adverse weather conditions.

7 Training for Site Staff

7.1 Training Needs Assessment

7.1.1 All new and existing site staff are subject to a specific training regime based on their responsibilities at the site to ensure all operations are carried out without harm to the environment or amenity of the surrounding area. Training in all aspects of the site and waste operations at the site with regard to the individual responsibilities of the site staff will help to prevent incidents occurring which may have an adverse impact on the environment and/or the employees and their co-workers.

7.1.2 An employee training record (i.e. EED/RF/6 in Appendix II) shall provide a comprehensive checklist for the training needs of all new site staff and also serves as a training review for existing site staff which will be carried out annually or a period set at the operator's preference.

7.2 Site Rules and Infrastructure Training

7.2.1 This information is provided to all employees, visitors and contractors with a full understanding of the sites conditions of use, which is communicated and documented at induction for all staff with specific induction for visitors and contractors.

7.2.2 Competency should be demonstrated within this field to ensure the employee is fully aware of the sites surroundings and operations to ensure their safety and compliance with specific operating conditions at the site.

7.3 Emergency Procedures Training

7.3.1 All employees are required to be familiar with the Environmental Controls in Section 4.0 and the Emergency Procedures as detailed in the Section 5.0.

7.3.2 In addition to normal operating conditions as specified in the site rules, employees must also be trained in dealing with eventualities which may occur outside the scope of normal operating conditions, so they are aware of how to deal with these situations in advance of an occurrence.

7.4 Fire Safety /Firefighting Training

7.4.1 Management must provide all employees with appropriate fire safety training with regard to their individual responsibilities as detailed in the site's FPP.

7.4.2 Emergency procedures detailing what measures employees should adopt should a fire occur at the site are also detailed in Section 5.2 and are covered by the 'emergency procedures' training (see Section 7.3).

7.4.3 Regular fire drills are undertaken by site management to ensure proper procedures are followed by employees in the unlikely event that a fire incident occurs**.** These will be unannounced drills and will not form part of the induction or review training as specified in Section 7.1.

7.5 Recognition of Waste Types Training

7.5.1 All employees are given induction training and subsequent regular training to identify those waste types which are permitted for acceptance at the site under the sites EP and those wastes which are not. This will include specific training to identify those common wastes which may be found following deposit and are not permitted at the site and will also include more obscure wastes and how to handle these wastes safely. All employees are advised that they should refer any unrecognisable or unknown wastes to senior management, who should, in turn, follow procedures outlined in the EMS and/or contact the EA to agree a suitable method for removal.

7.5.2 Training is provided to all site users who handle waste on site and those in charge of administration and reporting. In-depth training will also be provided to drivers responsible

for collecting wastes from the site of production in accordance with Section 3.0. They will be trained to identify any wastes not covered by the EP for the site and inform the producer that an alternative facility must be sought for any non-compliant wastes.

7.6 Storage Areas /Limits Training

7.6.1 Those employees who carry out their responsibilities at the site and those in senior posts must be trained to identify appropriate waste storage areas to ensure that waste storage operations comply with the requirements of the EP for the site.

7.6.2 Employees in these roles must also be trained to recognise storage limits to ensure that they are in accordance with those specified in the EP.

7.7 Vehicle /Plant Preventative Maintenance Training

7.7.1 This training is provided specifically for the vehicle and plant operators in order to ensure that all plant and machinery is checked regularly to prevent any occurrences which may lead to any adverse impacts on the environment or human health.

7.7.2 Training will be in accordance with this document and will be based on the preventative maintenance schedule supplied by the plant/equipment manufacturer.

7.7.3 The same training will be provided to senior management enabling a dual-level maintenance programme.

7.8 Duty of Care Training

7.8.1 All employees dealing with consignments of waste are trained in the completion of Duty of Care Waste Transfer Notes and the appropriate auditing of destination sites and/or contractors to ensure compliance.

7.9 Plant Operation Training

7.9.1 Any employees who are required to operate loading or treatment plant for the movement or processing of waste will be required to undertake the necessary qualifications for the operation of the specific item of plant in question. This will be required prior to operating the plant and will be obtained through necessary external certification programmes.

7.9.2 Regardless of general plant operation certification, all operatives will be fully inducted in the operation of the specific make and/or model of plant used on site.

7.10 Permit /Management System/Fire Prevention Plan Training

7.10.1 All employees will be inducted into the operating conditions as prescribed in the EP for the site. Whilst much of the above training will provide specific guidance on many aspects of these documents, all employees will be made aware of the location of the EP and EMS in the site office. All managerial positions will be made fully aware of the sites operating conditions.

7.11 Training for Contractors

7.11.1 General site training will be provided to any contractors who are working on the site on a temporary basis as described in Sections 7.2, 7.3 and 7.4 above.

7.11.2 Additional training will be provided to contractors in their area of expertise. If they are dealing with specific items of plant/machinery, site operating conditions and a general understanding of the EP conditions will be provided to prevent any adverse impacts on the environment.

Appendix I

Drawings

NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	19.06.24	RS	Initial drawing

KEY:

Permit boundary

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
SITE LOCATION PLAN

CLIENT
Elliott Environmental Drainage Ltd

PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A4	CLIENT NO	JOB NO
1:1,250	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-02	-	Issued

DRAWN BY	CHECKED	DATE
RS	RS	19.06.24

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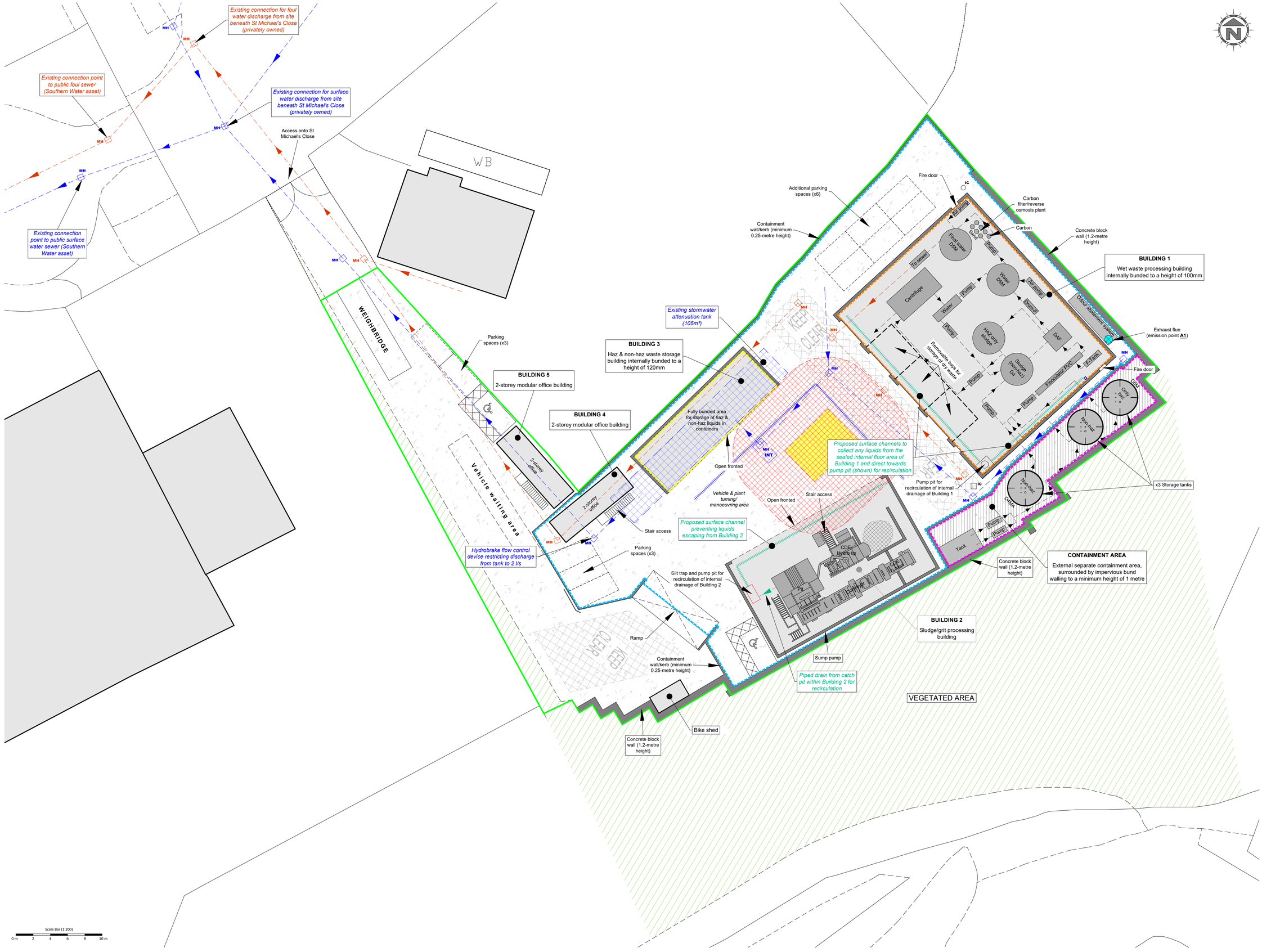

NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	08.11.23	RS/IA	Initial drawing
A	07.03.24	JH	Amendment
B	08.03.24	JH	Parking added
C	11.06.24	JH	Working amendment
D	19.06.24	RS	Application submission
E	26.06.24	RS	Quarantine area added

KEY:

- Permit boundary
- Containment Zone A (Building 1)
- Containment Zone B (Building 3)
- Containment Zone C (External tank storage area)
- Containment Zone D (Site-wide tertiary containment)
- INT — Full retention oil interceptor (fitted with penstock valve)
- Piped surface drainage (surface, foul, building)
- Linear surface channels (aco) - (surface, building)
- MH — Manhole (foul, surface)
- IC — Inspection cover (other services)
- Quarantine area (only used in the event of a fire and kept clear at all other times
- 6 metre separation distance around the quarantine area where no other combustible wastes will be stored

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
PERMIT LAYOUT PLAN

CLIENT
Elliott Environmental Drainage Ltd

PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A1	CLIENT NO	JOB NO
1:200	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-03	E	Issued

DRAWN BY	CHECKED	DATE
RS	RS	26.06.24

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Appendix II

Record Keeping Forms

ELLIOT ENVIRONMENTAL DRAINAGE LIMITED
REJECTED WASTE - RECORD FORM EED/RF/2

DATE	
TIME	
WASTE DESCRIPTION	
QUANTITY OF WASTE	
PRODUCER/HOLDER'S NAME, ADDRESS & TELEPHONE No.	
NAME OF CARRIER	
VEHICLE REGISTRATION	
CARRIER REG. No.	
REASON FOR REJECTION OF WASTE	
ACTION TAKEN	

	ELLIOT ENVIRONMENTAL DRAINAGE LIMITED **SITE INSPECTION FORM – EED/RF/4**

WEEK STARTING

TYPE OF INSPECTION	**FREQ**	**DAY**						
		M	**T**	**W**	**T**	**F**	**S**	**S**
SITE ENTRANCE/NOTICE BOARD	**WEEKLY**							
SECURITY - GATES	**WEEKLY**							
SECURITY - FENCING	**WEEKLY**							
SITE ROADS (CLEAR FROM HAZARDS)	**DAILY**							
IMPERMEABLE CONCRETE AREAS	**DAILY**							
BUND AROUND CONCRETE PAD (INTEGRITY)	**DAILY**							
DRAIN (FUNCTIONING)	**DAILY**							
HOLDING TANK / SUMP / INTERCEPTOR	**WEEKLY**							
WASTE CONTAINERS	**DAILY**							
WASTE STORAGE LIMITS	**DAILY**							
REJECTED WASTE TYPES / STORAGE	**WEEKLY**							
NOISE LEVELS	**DAILY**							
FIRES (ANY INCIDENTS REPORTED)	**DAILY**							
NO SMOKING SIGNS IN PLACE	**MONTHLY**							
SPILLAGES & ABSORBENTS	**DAILY**							
FUEL TANK/BUND INTEGRITY	**WEEKLY**							
LITTER	**DAILY**							
DUST	**DAILY**							
ODOUR	**DAILY**							
VERMIN	**DAILY**							
RECORDS	**WEEKLY**							
COMPLAINTS RECEIVED	**AS REQUIRED**							
OTHER (SEE NOTES BELOW)	**AS REQUIRED**							
INSPECTION CARRIED OUT BY								

	NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):

CHECKED BY			**SIGNATURE**	
POSITION			**DATE**	
Sheet			***of***	

ELLIOT ENVIRONMENTAL DRAINAGE LIMITED
PREVENTATIVE MAINTENANCE CHECKLIST– EED/RF/5

CHECKED BY	**POSITION**
DATE	**DATE OF LAST CHECKLIST**

	EQUIPMENT ITEM					
OFFICIAL MAINTENANCE CHECK REQUIRED (Y/N)						
IF NO, DATE OF LAST CHECK						
IF YES, DATE OF NEXT CHECK						
IS ITEM IN CORRECT WORKING ORDER						
LEAKAGES OF OIL/DIESEL ON MOBILE PLANT / VEHICLES						
IF NO, WHAT REPAIRS ARE REQUIRED (USE SEPARATE SHEET IF REQUIRED)						
WERE REPAIRS DETAILED ON THE LAST CHECKLIST						
IF YES, HAVE THEY BEEN CARRIED OUT						
ADDITIONAL REPAIRS OR ACTIONS REQUIRED						

ELLIOT ENVIRONMENTAL DRAINAGE LIMITED
EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW - EED/RF/6

EMPLOYEE NAME				**DATE COMPLETED**			
POSITION				**REVIEW DUE**			
TRAINER				**OUTCOME**	**PASSED**		
POSITION					**FURTHER TRAINING REQUIRED**		
CARRIED OUT /SIGN OFF >	**Y/N**	**SIGNED BY EMPLOYEE**	**SIGNED BY TRAINER**		**Y/N**	**SIGNED BY EMPLOYEE**	**SIGNED BY TRAINER**
ENVIRONMENTAL PERMIT				**FIRE PREVENTION PLAN**			
MANAGEMENT SYSTEM				**FIRE SAFETY**			
SITE RULES				**EMERGENCY PROCEDURES**			
RECORD KEEPING / TRANSFER NOTES				**STORAGE /PILE SIZE LIMITS**			
RECOGNITION OF WASTE TYPES				**STORAGE DURATION**			
SECURITY				**FIRE DETECTION**			
VEHICLE CHECKS				**FIRE ALARMS**			
PLANT OPERATION				**FIRE FIGHTING EQUIPMENT**			
PLANT CHECKS				**FIRE WATER CONTAINMENT MEASURES**			
AMENITY - LITTER, ODOUR, PESTS etc.				**SPILL CLEARANCE**			
NOTES AND ACTIONS:							

ELLIOT ENVIRONMENTAL DRAINAGE LIMITED
COMPLAINTS REPORT FORM (EED/RF/7)

Date Recorded:	**Reference Number:**
Name and address of caller	
Telephone number of caller	
Time and Date of call	
Nature of complaint (noise, odour, dust, other) (date, time, duration)	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other complaints relating to this report	
Any other relevant information	
Potential reasons for complaint	
The operations being carried out on site at the time of the complaint	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Environmental Management System (EMS)	
Date changes implemented	
Form completed by	
Signed	
Date completed	

COMPLAINT RECORDING PROCEDURE:

Any complaints received will be recorded on form EED/RF/7. This form will normally be completed, signed and dated by the Site Manager; if they are not available the Office Manager will complete the form.

1) The name, address and telephone number of the caller will be requested.

2) Each complaint will be given a reference number.

3) The caller will be asked to give details of:

    a) the nature of the complaint;
    b) the time;
    c) how long it lasted;
    d) how often it occurs;
    e) Is this the first time the problem has been noticed; and
    f) what prompted them to complain.

4) The person completing the form will then, if possible, make a note of:

    a) the weather conditions at the time of the problem (rain, snow, fog etc.);
    b) strength and direction of the wind; and
    c) the activity or activities taken place on the site at the time the noise was detected, particularly anything unusual.

5) The reason for the complaint will be investigated and a note of the findings added to the report.

6) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.

7) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be invited to contact the Environment Agency and or the Local Authority.

Note: Following any complaint the relevant management plan(s) will be reviewed to ensure appropriate actions are in place to counter any problems.

Appendix III

Environmental Permit & Accepted EWC Codes (to be added)

Appendix IV

Health & Safety – Conditions of Site Use

HEALTH AND SAFETY - CONDITIONS OF SITE USE

The following guidelines apply to all site personnel, contractors and visitors using the site (where applicable).

1) The site is covered by the Health and Safety at Work Act 1974 and its associated regulations and all users must abide by any relevant provisions. Any person found to be in contravention of the requirements of this Health and Safety Statement will be asked to leave the site.

2) All visitors and contractors must sign the visitor's book upon entry to and exit from the site. All vehicle drivers must report to the office and await instruction from the site manager/deputy before proceeding to deposit waste at the site.

3) All accidents, diseases, injuries or dangerous occurrences shall be reported to the site manager. All instructions issued by the site manager in respect of health and safety at the site must be followed by all site users.

4) A first aid box (including eye-wash bottles) is kept in the site office. If you are injured on site please alert a member of staff/trained first-aider for assistance.

5) All persons must wear the appropriate PPE on site including high visibility jackets and hard hat.

6) Safety boots must be worn by all persons in the waste treatment/storage areas.

7) Protective gloves must be worn for any operations which present a hazard of puncture to or laceration of the skin or for any manual handling work carried out on site.

8) Ear defenders, safety helmets (hard hats) and eye protection will be issued when deemed necessary and must be worn by all employees and contractors where required by the site manager or other site representatives.

9) Fire extinguishers are kept on site to deal with any fires - fires shall only be dealt with by employees of Elliot Environmental Drainage Limited unless alternative instructions are given by the site manager. Access to fire exits and firefighting equipment must be kept clear at all times. When the fire alarm sounds please follow instructions and leave the site in an orderly fashion.

10) Persons who are suspected to be under the influence of drugs or alcohol will be removed from the site.

11) Smoking is not permitted on the site.

12) Observe and follow all traffic directions and traffic/safety signs.

13) Drivers must comply with all safety instructions given by the site manager or appointed deputy.

14) All drivers are responsible for ensuring that their vehicle is safely loaded. Unsafe loads will not be accepted at the site and will not be allowed to leave the site until they have been made safe.

15) Drivers waiting to tip at the recycling centre shall follow the instructions of the operator and shall only tip in the designated area, unless advised otherwise. No tipping shall take place over sorted stockpiles.

16) Drivers must remain in the cab or stand well clear of the vehicle during loading or tipping. Once the vehicle has been loaded it must be securely sheeted (if necessary) before leaving the site. When sheeting and unsheeting the vehicle ensure that the engine is switched off, the ignition key removed and the parking brake is on. Do not gain access using the mudguards and wheels. Ensure that your ropes, hooks and sheets are in good condition.

17) Never travel with the vehicle body raised. Ensure you know the maximum height of the raised body of your vehicle.

Declaration: To be completed by site users

I have read and understand the conditions of use for this site and agree to comply with them at all times. I accept that neither Elliot Environmental Drainage Limited nor their employees shall be liable for any loss or injury arising from my non-compliance with the above conditions.

Signed..... Print name.....

Company/Organisation..... Date.....

Note: these conditions are included in the EMS for information only and may be revised regularly as part of the site health and safety policy.

Permit Application Supporting Document

Appendix IV

Odour Management Plan

ODOUR MANAGEMENT PLAN

St Michael's Close, Aylesford, ME20 7XE

Elliot Environmental Drainage Limited

Version:	1.4	**Date:**	05/08/2024		
Doc. Ref:	2499-002-D	**Author(s):**	DY/IA	**Checked:**	EED
Client No:	2499	**Job No:**	002		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

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REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	15/05/2020	DY		Draft for internal review
1.1	28/05/2020	DY		Revised receptor plan
1.2	24/06/2024	DY/IA		Updated based on reconfigured site layout
1.3	01/07/2024	DY/IA		Permit application drawings included
1.4	05/08/2024	DY/IA		Amendments to Section 1 and 2

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Odour Diary

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1 Introduction

1.1 General

1.1.1 Oaktree Environmental Ltd has been instructed by Elliot Environmental Drainage Limited to prepare an Odour Management Plan ("OMP") for their Waste Treatment Facility and Packaging Plant at St Michael's Close, Aylesford, ME20 7XE.

1.1.2 This OMP has been prepared in support of a planning and permit application being prepared for operations at the site. An OMP was approved as part of the previous planning application for operations at the site. This OMP is an update to the previously approved document to reflect the proposed reconfiguration to the site layout and is subject to agreement with the Environment Agency (EA).

1.1.3 The site address and contact details for Elliot Environmental Drainage Limited (i.e. the 'site operator') is:

Elliot Environmental Drainage Limited St Michael's Close, Aylesford, ME20 7XE,	**Contact:**	Terry Whitby
	Position:	Director

1.1.4 The site is operated in accordance with an Environmental Management System (EMS) along with other documents targeted to specific environmental considerations including this OMP.

1.1.5 As is described throughout this OMP, the processes undertaken on-site will be predominantly enclosed with abatement plant used as necessary. As such, potential odour impacts are not expected to be significant. However, this OMP will allow Elliot Environmental Drainage Limited to implement an action plan should the site operatives detect an odour presence, receive complaints from local businesses or residents and if the EA suspects odour emissions from the site during an inspection.

1.2 Relevant Guidance

1.2.1 Reference has been made to the following relevant guidance during the drafting of this OMP:

- H4 Odour Management: How to Comply with your Environmental Permit, EA, March 2011.

1.2.2 Appendix 4 of the EA H4 guidance outlines information considered to be essential for inclusion within an OMP. This OMP has covered the following aspects, in accordance with the H4 guidance:

- Details of potential odour sources, including descriptions and quantities;
- Details of relevant receptors sensitive to odour;
- Details of local meteorological conditions;
- Assessment of potential risks from odours at sensitive receptors, taking account of receptor sensitivity, location, prevailing meteorological conditions and odour potential from operations on site, using an established risk assessment approach;
- Outline of control measures to be used to control potential odour risks to an acceptable level;
- Outline of contingency measures for dealing with incidents or emergencies;
- Details of odour monitoring procedures to be used; and,
- Details of complaints response procedure.

1.3 Site Location

1.3.1 The site is located on land at St Michael's Close, Aylesford, ME20 7XE within an established industrial estate. The approximate National Grid Reference for the site is 574503, 159085.

1.3.2 The site is located at St Michael's Close, approximately 650m North-East of the centre of the village of Aylesford in Kent. The site consists of a warehouse type building which is surrounded by a concrete apron with a sealed drainage system. The site is surrounded to

the North-East and South by the Cobtree Manor Park including the Cobtree Manor Park Golf Course to the East. The site is bounded to the west by the wider St Michael's Close Industrial Estate. The site is located within an industrial estate and therefore suitable for this type of development.

1.4 Waste Facility Overview

1.4.1 The site layout is shown by drawing no 2499-002-03 within Appendix I.

1.4.2 The majority of wastes received on site will include liquids and sludges which will be subject to physico-chemical treatment. This may include wastes such as interceptor wastes, jetting sludges, gulley wastes, contaminated soils, road sweepings and other sludges from industrial processes. Vehicles arriving at the site will report to offices for waste acceptance checks. Waste will be sampled to ensure it is eligible for acceptance into the site, any unauthorised/negative results will result in wastes being rejected, whist a positive result will ensure waste acceptance and the vehicle will be directed to the relevant reception area.

1.4.3 The wastes to be subject to treatment, i.e. sludges, grits, and liquid waste will be unloaded into the pit and be unloaded using a combination of pumping, tipping or ejection in a controlled manner. There will be two outlets from the treatment plant, i.e. hazardous and non-hazardous waste, which are blown through to the relevant tank or plant.

1.4.4 The load will be tipped and or washed out into the CDE Hydro max which will contain solid mater such as grits/rags/organics etc. It is worth noting that some solids will enter the conveyor system and be transported to the relevant stockpile.

1.4.5 Once the waste is processed through the Hydro tip it will be screened and dewatered through the CDE G:Max which will further separate liquids, sands/grits and organic matter, a rake screen will also be utilized to remove heavy solids as well as a grit screen which is used to further separate solids from liquids. The resultant liquids will be pumped directly into the appropriate hazardous or non-hazardous waste storage tanks which are to be located externally to the main processing building. There will be 3 such storage tanks which

each have a capacity of approximately 90,000 – 100,000litres and will temporarily store the liquid prior to it being processed further through wet waste treatment plant.

1.4.6 It is worth noting that the reception pit will only ever contain either hazardous or non-hazardous material at any one time to prevent cross contamination of loads. Between reception of the different types of loads, the pit will be emptied and cleared prior to the acceptance of a different waste stream.

1.4.7 Once the waste has accumulated within the external tanks it will be discharged into the warehouse building via enclosed HDPE pipework for water treatment and further screening. Water will be pumped through the flocculation unit equipped with sensing process linked to a control module and liquids will be treated as required. Water will then flow through the DAF unit where flocculation will take place.

1.4.8 Waste sludge will be pumped into the relevant sludge tank. The sludges can be recirculated through the flocculation units or pumped into centrifuge as required. The liquids (non-sludge) will be pumped onward where a carbon filter can be used or air introduced to further separate solids and liquids. The final phase water will flow through a sample chamber and onward to sewer. The solids will be run through centrifuge and into containers.

1.4.9 The main treatment building will include a Local Exhaust Ventilation (LEV) system, which will extract air, via a series of activated carbon filters for emissions control, with air exhausted via an external elevated flue for dilution and dispersion of residual emissions.

1.4.10 Additional wastes will be accepted which will not be subject to treatment and will simply be repackaged and sent on for further recovery or disposal. This will include either dry non-hazardous and hazardous wastes, non-hazardous and hazardous liquid wastes in containers or empty containers such as paint tins and bleach bottles which may contain residues of hazardous wastes. These wastes will be stored within a bunded storage area prior to being repackaged for export for further recovery or disposal at a suitably licenced facility.

1.4.11 Waste will be imported to the site using generally tankers, road sweepers or delivery vans.

1.4.12 The site will operate 24-hours per day from Monday to Saturday. No works will take place on Sundays or on Bank and Public Holidays except for maintenance works, situations where waste is brought in for deposit in emergency situations and general office use.

1.4.13 During times where the site is closed or not in operation, the site will be locked and secured to prevent unauthorised vehicular or pedestrian access.

1.5 Site Infrastructure

1.5.1 The main process building will be operated under negative pressure with a dedicated abatement system used to control Volatile Organic Compound (VOC) emissions and associated odour. There is potential for odour from release points via the other building entrances/access points. However, the site has alternative measures in place to ensure odours do not escape beyond the building or boundary as follows:

Alternative Measures:

- **Monitoring** – The site will undertake Olfactory/Sniff assessments which have been outlined further in Section 5 of this OMP.
- **Stock rotation** – All potentially odourous waste will be stored in enclosed tanks that undergo continuous monitoring.
- **Housekeeping** – The site will carry out regular cleaning (minimum once daily) of all operational areas. The site has a housekeeping schedule, as shown in section 4.9.

1.5.2 Site management will visually monitor the building and storage tanks on a daily basis and will carry out quarterly monitoring of their integrity. In the event that there are any issues the maintenance/repair works will be carried out within 48 hours.

1.6 Waste Types

1.6.1 The waste types handled on site will consist of a wide range of hazardous and non-hazardous wastes. A description of the waste types, storage arrangements, quantities stored, and duration of storage is included in the table below. The site will not accept any

putrescible wastes, including clinical waste or waste from meat or fish processing, which would be considered to be most offensive in terms of odour.

1.6.2 If the maximum storage capacity is reached, then no further waste will be accepted until waste can be removed from the site and taken to a suitably permitted or exempt site.

Table 1.1 – Waste Types

Waste Description	Nature of Waste and Storage Arrangements On-Site	Max Quantity Stored	Max Duration of storage	Odour Potential of Waste (see Table 2.1 for descriptors)
Interceptor wastes, jetting sludges, soils, gulley wastes, road sweepings, tanker wastes, subject to treatment on-site	Liquids, sludges and grits. Unloaded to reception pit, screened and then stored in storage tanks prior to introduction to physico-chemical treatment process	1,800 tonnes	3 months	Moderate to high
Wastes to be repackaged and sent on for further recovery/ disposal	Drums of liquid wastes stored in bunded, enclosed storage area. Dry solid wastes stored within enclosed storage area, Empty containers containing residues of wastes such as paint cans, bleach bottles etc	200 tonnes	3 months	Moderate

1.7 Site Management

1.7.1 The site will have a Technically Competent Manager (TCM) who will be responsible for the general management of the site, including the acceptance and handling of any potentially odorous wastes.

1.7.2 The company, through the TCM, will ensure that nominated deputies are sufficiently trained and familiar with all site management documentation (which includes this OMP) in addition to all relevant company procedures.

2 Odour Risk Assessment

2.1 Methodology

2.1.1 This OMP has been completed to identify where the likely risks are in relation to surrounding land uses. This assessment has been used to inform Section 5.0 of this OMP with regard to specific odour monitoring procedures.

2.2 Odour Intensity

2.2.1 Table 2.1 below the contains the criteria used to measure/evaluate odour intensity. A judgement is made of odour intensity at each receptor location.

Table 2.1 - Odour Intensity Scale & Description

Odour Intensity Scale & Description	
Negligible	No detectable odour
Low	Faint odour (barely detectable)
Moderate	Moderate odour, easily detected while walking (possible interference)
High	Strong odour (bearable, but offensive)
Severe	Very strong odour (this is when you really wish you were somewhere else)

2.3 Receptor Sensitivity

2.3.1 Table 2.2 below outlines the criteria used for assessing receptor sensitivity to odour which has been used when determining nearby odour sensitive receptors for the purpose of the risk assessment. Sensitivity to odour is subjective. An odour that may be tolerable to one person, may not be acceptable to others. However, in general, some types of receptors will be more sensitive to odour than others. For example, domestic residences are more likely to be sensitive to odour than receptors within an industrial complex or other receptors with short term transient exposure, including passers-by. Furthermore, direction and distance from the potential source of odour will have a bearing on potential for impact, along with

prevailing meteorological conditions, including wind speed and direction. The broad criteria below for assessing receptor sensitivity has been developed to take into account of such criteria, but is also precautionary in order to ensure the risk assessment and subsequent control measures are suitably robust.

Table 2.2 - Receptor Sensitivity Criteria for Odour

Sensitivity of Receptor	Criteria
Low	Industrial workplaces, areas of short term, transient exposure (eg public footpaths and areas where shorter periods of recreational use are undertaken)
Medium	Commercial/retail premises, places of work, residential use, areas used for extended periods of recreation, schools and hospitals >200 m from site boundary
High	Commercial/retail premises, places of work, residential use, areas used for extended periods of recreation, schools and hospitals <200m from site boundary

2.4 Sensitive Receptor Locations

2.4.1 A Receptor Plan (RP) has been produced to accompany this OMP and is shown in Appendix I. The receptors highlighted are those which are considered to be at risk from odour generated by the site. The table below outlines relevant sensitive receptors together with details of direction and distance from the site and sensitivity of receptor. The receptors identified are representative of worst case exposure in each direction for each type of receptor.

Table 2.3 - Odour Sensitive Receptors Within 400m of the Site

Receptor name	Type	Distance and Direction from Nearest Part of Site Boundary	Receptor Sensitivity to Odour
Industrial units within Aylesford Industrial Estate	Industrial	10m East, 20m West, 25m North	Low
Residential properties	Residential	325m, North-West	Medium
Cobtree Manor Park	Long term recreational	40m, South	High
Cobtree Manor Park Golf Course	Short term recreational	160m North-East, 220m, East	High

2.4.2 Total distances are measured from the boundary of the waste facility closest to the nearest receptor point. In reality distances to the waste storage/treatment areas may be greater.

2.5 Prevailing Meteorological Conditions

2.5.1 The wind rose below shows wind speed and direction frequency between 2019 and 2023 based on Numerical Weather Prediction (NWP) data for the grid squares containing the site. This is considered to provide the most representative data for prevailing meteorological conditions, in lieu of any suitable nearby observing stations. As is shown, wind direction is predominantly between South and West. There is also a significant occurrence of wind direction frequency from the North-East. As a general rule, any odours will be transported by prevailing winds to locations downwind of a source with little or no odour detectable upwind of a source. The exception to this is during calm conditions when odours may travel/be dispersed against wind direction. Consideration should be given to these factors when assessing risk and mitigation.

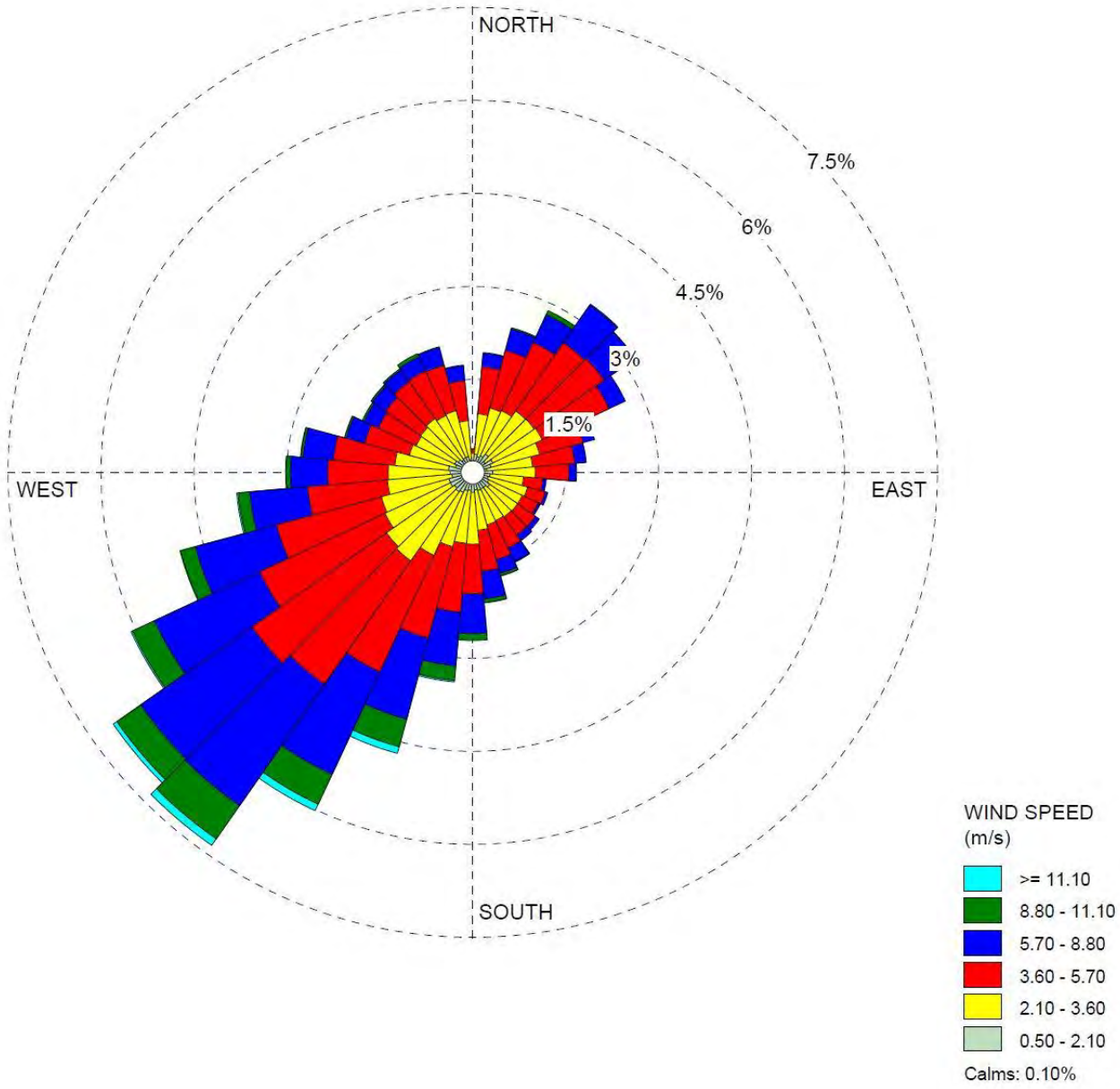

Figure 1 - Wind Speed and Direction Frequency Between 2019 and 2023, Based on Numerical Weather Prediction Data for the Grid Squares Containing Site

2.6 Risk Matrix

2.6.1 The odour risk in any particular event can be established using the risk assessment matrix given in Table 4 below, which is derived based on receptor sensitivity and odour intensity.

Table 2.4 - Resultant Risk Matrix (Colour-Coded)

		Sensitivity		
		Low	Medium	High
ODOUR INTENSITY	Negligible	NEGLIGIBLE	LOW	LOW
	Low	LOW	LOW	MEDIUM
	Moderate	LOW	MEDIUM	MEDIUM
	High	MEDIUM	MEDIUM	HIGH
	Severe	MEDIUM	HIGH	VERY HIGH

3 POTENTIAL SOURCES OF ODOUR

3.1 Delivery of Liquid Wastes, Grits and Sludges

3.1.1 Liquid wastes, road sweepings, grits and sludges which are to be subject to treatment will be delivered to site in sealed tanker lorries. These will be unloaded to the waste reception building (building 1), offloaded in a controlled manner to the CDE Hydro Tip within Building 2. This will act to screen any larger material such as stones, which will be conveyed to a stockpile. The remaining sludges and liquids will be transferred to the CDE G-Max which will provide further screening of the material, separating liquids, sand, grits and organic matter. The resultant liquids will be pumped to dedicated non-hazardous and hazardous storage tanks, located externally to the building, which will store liquids prior to being processed further within Building 1.

3.1.2 Liquid wastes will not be exposed for extended periods of time, being delivered to site in sealed tankers and exposed only for short periods time during the initial dewatering and screening processes, prior to transfer to sealed tanks.

3.2 Treatment of Liquid Wastes

3.2.1 After initial screening, liquid wastes will be transferred from the three external storage tanks to the main process building (Building 1), where they will be subject to further screening and physico-chemical treatment. The building will be operated under negative pressure with fast acting roller shutter doors with exhaust air directed to a dedicated odour abatement plant, with residual air exhausted via an elevated flue.

3.3 Waste Water from Treatment Facility

3.3.1 The water arising from the wet waste treatment facility will be disposed to sewer via enclosed drain. Therefore, this does not present a significant source of odour.

3.4 Oils from Wet Waste Treatment Facility

3.4.1 Oils arising from the wet waste treatment facility will be collected in sealed containers and packaged prior to export for further recovery/disposal at a suitably permitted off-site facility. As such, this does not present a significant source of odour.

3.5 Delivery of Wastes to Repackaging Area

3.5.1 The repackaging area (building 3) will generally accept waste which is non-odourous wastes or wastes which are contained within sealed vessels. This will include dry hazardous and non-hazardous wastes or liquid wastes in sealed containers. As such, this does not present a significant source of odour. These wastes will be packaged prior to export from site for further treatment/recovery.

3.6 Waste Handling/processing

3.6.1 All potentially odorous wastes will be delivered and removed from the site in sealed containers/tankers.

3.7 Foul Surface Water

3.7.1 The drainage system shown on Drawing No. 2499-002-03 will be monitored regularly to ensure it is functioning correctly.

3.8 Background Odour Sources in the Area

3.8.1 Consideration has been given to other potential local off-site sources of odour. A search on the EA public register has been undertaken to identify any other waste sites or Part A1 installations in the vicinity of the proposed site. A 1km search radius was used from the postcode of the site location. Identified sites are summarised in the table below.

Table 3.1 – Part A1 Permitted Processes and Waste Operations Within 1km of the Site

Company	Address	Permit Ref	Type	Approximate distance & Direction from site boundary (m)
Enterprise (AOL) Limited	Double Day House, St Michaels Close, Aylesford, Kent, ME20 7BU	KB3130RT	Waste Management – Physical Treatment	225m, West-South-West

3.8.2 In addition, there are a number of industrial and commercial premises situated to the North, West and South of the site, which could have potential to generate some odour.

3.8.3 In order to determine whether complaints are the result of activities from the site or from other nearby sites an odour complaints form will need to be completed in line with the company's complaints procedure which is attached in Appendix II.

4 ODOUR CONTROL

4.1 Site Operations

4.1.1 Following site procedures will prevent odour release from the site under normal operating conditions. The only conceivable release of significant odour would occur if there is an accidental spillage either on its own or associated with some wider incident.

4.1.2 Limiting odour from the waste recycling facility can best be achieved through employing effective site management and good general practice. It is much easier minimising odours in the first instance than dealing with problems once they occur.

4.2 Waste Acceptance Procedure

4.2.1 Strict waste acceptance procedures will be in place at the site as shown below and the following details will be recorded for every load deposited at the site:

a) The date and time of delivery.
b) The name and address of the waste producer.
c) The detailed and accurate description of the waste including type, quantity (in tonnes and/or cubic metres) and EWC codes.
d) How the waste is contained e.g. loose, container type.
e) The carrier's name and address.
f) Driver’s name, signature and vehicle registration No.
g) Signature or initials of person(s) producing/ accepting/ inspecting/ carrying the waste.
h) Additional handling details/notes made by the driver after inspection of the load.
i) SIC code of the premises which produced the waste (where relevant).
j) Waste hierarchy declaration.
k) Information on any previous treatment of the waste e.g. manual or mechanical.

4.2.2 Any wastes identified during the incoming waste inspections which do not conform to site acceptance criteria will not be accepted. If the non-conforming waste is discovered

following deposit, the waste will be loaded back onto the vehicle and removed off site or quarantined immediately in a sealed/covered skip or container to await safe removal.

4.2.3 If the site reaches capacity and/or operational difficulties occur, incoming wastes will be diverted to another authorised treatment facility.

4.3 Receiving Wastes

4.3.1 Liquid wastes, grits and sludges which are subject to treatment will be delivered to site in sealed tanker lorries and unloaded in a controlled manner to a reception pit for screening and then transferred to the CDE G max further screening and separation with resultant liquids transferred to the three external storage vessels. Liquid wastes will not be exposed for extended periods of time, being delivered to site in sealed tankers and exposed only for short periods of time during the initial dewatering and screening processes, prior to transfer to the sealed tanks. Deliveries will be infrequent based on the permitted number of HGV movements, which is limited to 10 deliveries per day. However, the CDE G Max is fitted with spray bars and the reception area will include a fire hose/water cannon for washing out and dampening of material, as required.

4.3.2 The above measures will ensure that during routine operation, sufficient controls will be in place to control any potential for significant odour release during receipt/acceptance of wastes on-site for treatment.

4.4 Solid Waste Storage within Building 2

4.4.1 Material such as grit and stones which is screened from the incoming wastes will be stored within a stockpile prior to export from site. This will be kept damp to prevent fugitive release of odour.

4.5 Liquid Waste Storage Prior to Treatment

4.5.1 Liquids wastes will be stored within three external tanks prior to transfer to the main processing building. These will be maintained under pressure (pumped) into sealed tanks, ensuring that odour control is within place at the point of venting for tanks.

4.6 Main Waste Processing Building (Building 1)

4.6.1 The main waste processing building will include an extraction system which will extract air via a series of activated carbon filters for emissions control, with air exhausted via an external elevated flue for dilution and dispersion of residual emissions.

4.6.2 The extraction system has been designed to extract from a negative pressure environment. The site proposes to install the Nodour Hi-Flo 'twin bed' activated carbon system which is utilised in combination with an extraction fan and integral particulate pre-filter bed to protect carbon media. The extracted air will be collected via a duct system and routed to the main feed stock area and passes through a carbon adsorption unit prior to being discharged via the proposed stack. The above is detailed on the site layout plan (Drawing No. 2499-002-03).

4.6.3 The system will be maintained by the installation company who will inspect the unit periodically. If odour monitoring indicates the system is the source of an odour, the plant will be checked by an engineer forthwith and the filters replaced if they are considered to be malfunctioning. In routine operation, the filters will be changed at intervals recommended by the manufacturer.

4.6.4 The above measures ensure that odours associated with the operations within the main processing building will be adequately controlled.

4.7 Wastes to be Repackaged

4.7.1 Wastes to be repackaged (withing building 3) will include dry non-hazardous and hazardous wastes, liquid wastes within sealed containers or empty containers containing residues of

wastes, such as paint tins and bleach bottles. This therefore provided adequate control of potential odour.

4.8 Loading of Wastes for Export from Site

4.8.1 All potentially odorous wastes will be removed from site in sealed containers/tankers. Under normal operating conditions there is no risk of odour release. It is only in accident scenarios where a release is possible. The level of such a risk is very low.

4.9 Housekeeping

4.9.1 Regular cleaning of operational areas will be carried out to discourage odour generation. Site management will be responsible for checking operational staff have carried out suitable daily checks in line with the procedures shown in this OMP.

4.10 Liaison with Neighbours

4.10.1 In the extreme event of significant but temporary odour releases outside normal operations, neighbours will be contacted to advise them of what is occurring and the action being taken. The Environment Agency (EA) will also be notified.

4.10.2 An open-door policy will be encouraged by the operator to enable any complaints from neighbouring premises (if received) to be dealt with immediately. The complainant will then be supplied with remedial actions taken and any procedures or measures put in place by the operator to reduce or ideally eradicate the likelihood of a subsequent complaint.

4.10.3 If any odour complaints are received, the complaint will be assigned to an operative familiar with the site operations who will complete a 'complaints and events log' which will be detailed individually on the complaints form (in Appendix II), both of which will be kept for inspection on request by the EA. Details of information to be completed are dates, nature of complaint, weather conditions at the time of the complaint, investigation details, action taken and a signature (as a minimum). Odour complaints will be investigated and responded to within 24 hours and suitably reviewed by the site manager who is ultimately responsible.

4.10.4 The operator would also be required to make a note of any unavoidable events plant/equipment malfunctions in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the Council/EA or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed to the cause of the complaint. If there are significant odour releases outside normal operations, the operator will cease operation, investigate and resolve the issue before continuing.

4.11 Training

4.11.1 All employees and sub-contractors of Elliot Environmental Drainage Limited involved with potentially odorous materials and their handling will receive training in Sniff testing (including office/admin workers allocated to undertake the Olfactory (Sniff) test) and complaint reporting (management and operations staff).

4.11.2 Training will be given to all relevant persons to make sure they are competent in completing olfactory assessment survey forms, odour complaint report forms and the odour diary to ensure sufficient monitoring of odours can be carried out.

4.11.3 Operational staff will receive spill clean-up training including containment of odorous wastes.

5 MONITORING (IF REQUIRED)

5.1 Monitoring Odorous Releases

5.1.1 Elliot Environmental Drainage Limited will use the following techniques to monitor odorous releases, if required:

a) Olfactory Monitoring
b) Complaints Monitoring
c) Odour Diaries (when necessary)

5.2 Olfactory Monitoring

5.2.1 Odour will be monitored if there is a spillage of potentially odorous material, if an odour is detected on-site or in the event of odour complaint arising. In the event of such occurrence, the site supervisor will monitor odour around the entire site perimeter and an Odour Diary will be completed (Appendix II). The monitoring will be carried out at intervals whilst the site is operational, additional monitoring may be carried should there be reason to suspect a potential odour problem (potentially malodorous waste onsite, foul surface water issues etc.).

5.2.2 The results of monitoring exercises and any remedial action taken will be entered into the log book which will be available for the EA to inspect upon request. The name of the site supervisor will be stated in the site's diary along with notes on weather including precipitation, temperature, wind speed and direction (from Met Office information).

5.2.3 Should the monitoring conclude that a certain activity/waste is giving rise to odour which is migrating offsite, steps will be taken to reduce the impact of this activity, which may include, but is not limited to; removal offsite to a suitably licensed facility, faster processing/lower storage rates, pumping and removal of standing surface water etc.

5.2.4 The site supervisor will be suitably trained to carry out these duties.

5.2.5 Prior to carrying out a routine odour check, the relevant member of staff will vacate the site for a period of 30 minutes and then carry out the assessment on their return to ensure they are not desensitised to the odour.

5.3 Odour Monitoring Procedure

5.3.1 Olfactory (Sniff) testing will be carried out by trained, competent staff . Assessments will be carried out in response to specific complaints or should the site operator detect odour on-site.

5.3.2 The Assessor should not:

a) Smoke or consume strongly flavoured food or drink for at least 30 minutes before the assessment.
b) Consume confectionary or soft drinks immediately before the assessment.
c) Apply scented toiletries, such as perfumes or aftershave immediately before an assessment.

5.3.3 Starting points of assessments outside the site should first be upwind of the site as far as access and safety factors in the surrounding area allows, progressing towards the site boundary. The next starting point should be downwind of the site as far as access and safety factors in the surrounding area allows, progressing towards the site boundary and then moving away from the site in an upwind direction. The person carrying out the assessment should walk slowly and breathe as normal. The points have not been provided on the site plan due to the regular variations in wind speed and direction.

5.4 Complaints Monitoring Procedure

5.4.1 All odour complaints will be investigated promptly and appropriate remedial action will be taken if the complaint is validated. Complaints will be recorded on the form found in Appendix II.

5.4.2 Complaints to the EA will also be recorded and taken into account. An olfactory assessment survey will be carried out from where the complaint was made and from any convenient

locations between the complainant/receptor and the site so that the complaint can be validated or rejected.

5.5 Odour Diaries

5.5.1 If members of the local community are frequently reporting odour issues in the vicinity, then they will be asked (if agreeable) to keep an odour diary. This will help to build up an account of when the odour occurs, their location and the site operations that were being carried out at the time, as well as the duration of the activities taking place. Any obvious problems can then be addressed.

6 CONTINGENCY PLANS

6.1 Contingencies and Emergency Plans

6.1.1 In accordance with the EA's guidance on OMPs, contingency plans have been prepared to react to situations 'where monitoring indicates that a potential odour source is not completely under control, meteorological conditions are unfavourable or that adverse impact has occurred'.

6.1.2 If excessive odours are detected at the site boundary, other monitoring point or a complaint is received, the following remedial procedures will be taken:

a) Firstly, identify the odour source; is it from:

i) Site operations; or,
ii) An off-site source (e.g agricultural spreading operation, other industrial sources)

b) If on site:

i) Report incidence to the site or technically competent manager;
ii) Identify the point of release of the odour;
iii) Identify the cause if the release i.e. machine breakdown, leakage, etc.;
iv) Identify a solution;
v) Implement a solution;
vi) Carry out olfactory tests to check if fix is working;
vii) Record actions taken on relevant forms and site diary as required by this plan

6.1.3 Then, reference should be made to the next section for actions taken if odour is being produced on site, to identify an appropriate solution.

6.2 Corrective Actions for Various Situations

6.2.1 Table 6.1 below summarises the various problems that could potentially arise at the site and the standard responses available, which will assist in reducing odour potential.

Table 6.1 - Corrective Actions

Process/Event	Problem	Corrective Action
Normal operation	Excess odour	See section 6.3 for corrective actions required
Abnormal operation, eg adverse weather conditions	Adverse weather conditions resulting in increased odour risk at sensitive receptors	See section 6.4 for corrective actions required
Staff shortages/human error	Staff shortage due to absence/no-shows	See section 6.5 for corrective actions required
Operational failure	Operational failure such as machine/plant malfunction/failure leading to odour issues	See section 6.6 for corrective actions required
Waste Loading/unloading	Accidental Spillage	Follow identified spillage procedure to contain odour release.
Stored wastes	Odorous emissions detected	Olfactory/SNIFF test required to pinpoint source. Ensure procedures outlined in Section 5 are adhered to in full. Implement liaison programme if risk deemed HIGH or VERY HIGH i.e. strong or severe as shown in Table 2.4.
Waste processing plant and machinery	Malfunction of plant/equipment leading to excess odour	Process to cease until issue is rectified
LEV system	Failure of abatement unit leading to odorous emissions	No further waste to be accepted into the building until issue is rectified. LEV system fully inspected to identify and rectify problem.

6.3 Normal Operation

6.3.1 In the event that excess odour is detected during normal/routine operation, the offending odour will be traced and the reason for the cause of the problem will be investigated. Once solutions are in place, olfactory monitoring will be carried out to ensure the solutions put in place are having the desired effect.

6.4 Abnormal Events

6.4.1 Adverse weather conditions can promote generation of odour and inhibit its effective dispersion e.g. hot weather with little wind, resulting in increased risk of odour to receptor locations. If this happens odour causing operations will cease until more favourable meteorological conditions return.

6.5 Staff Shortages/Human Error

6.5.1 In the event of unforeseen staff shortages arising from illness, suspension or no shows, the operator will make a judgement whether to reduce the number of incoming loads, thus reducing processing frequency and storage of potentially odourous wastes. The operator will then seek to increase staffing levels within a timely manner to ensure the site can continue to operate at its required capacity.

6.5.2 All staff will be trained and undergo toolbox talks every 6 months (or sooner if operations change) to reduce the impact of human error. In instances where a human error has caused an odour issue, the site may suspend operations until the issue has been rectified and the member of staff will be warned and re-trained accordingly.

6.6 Operational Failure

6.6.1 The manager will be contacted by staff in the event of any operational failure such as the breakdown of plant, systems or equipment and will decide whether operations are to continue or be suspended prior to corrective action being taken. Serious operational failures, which result in the closure of the site, will be recorded in the site diary.

6.6.2 All repairs to site security will be made within 24 hours of discovery of the damage if possible and the site will be made secure until the repair has been carried out.

6.6.3 Any major defects found during the daily site inspection which are likely to lead to a breach of permit conditions will be repaired by the end of the working day in which they are found, where possible. If a repair is not possible by the end of the working day and a potential

breach of permit conditions may occur, the EA will be contacted to agree a suitable timescale for repair.

6.6.4 All defects and problems likely to give rise to odour will be recorded on the form EEDL/RF/7 or the operators own recording procedures with repairs/solutions being carried out immediately. Neighbours will be alerted if the problem cannot be rectified immediately and provided a timescale for when the problem will cease.

6.6.5 Essential spares for plant maintenance will be kept on site.

6.7 Liaison with Neighbours

6.7.1 In the extreme event of significant but temporary odour issues during normal operations, neighbours will be contacted to advise them of the situation and the action being taken. The EA will also be notified.

6.7.2 An open-door policy will be encouraged by the operator to enable any odour complaints from neighbouring premises (if received) to be dealt with immediately. The complainant will then be supplied with remedial actions taken and any procedures or measures put in place by the operator to reduce or ideally eradicate the likelihood of a subsequent complaint.

6.7.3 If any odour complaints are received, the complaint will be assigned to an operative familiar with the sites operation who will complete a 'complaints and events log' and detailed individually on the complaints form (in Appendix II), both of which will be kept for inspection on request by the EA. Details of information to be completed are dates, nature of complaint, weather conditions at the time of the complaint, investigation details, action taken and a signature (as a minimum). Odour complaints will be investigated and responded to within 24 hours and suitably reviewed by the site manager who is ultimately responsible.

6.7.4 The operator would also be required to make a note of any unavoidable events plant/equipment malfunctions in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the Council/EA or directly, any circumstances which led to that complaint as a result of elements outside of

the operator's control would be able to be attributed to the cause of the complaint. If there are significant odour releases outside normal operations, the operator will cease operation, investigate and resolve the issue before continuing.

6.8 OMP Review

6.8.1 This OMP will be reviewed at least annually unless it becomes apparent that the activities are giving rise to pollution outside the site due to odour, in which case it will be revised sooner within a timescale agreed with the EA and a copy forwarded to the EA for approval before implementation.

Appendix I

Drawings

NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	19.06.24	RS	Initial drawing

KEY:

Permit boundary

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
SITE LOCATION PLAN

CLIENT
Elliott Environmental Drainage Ltd

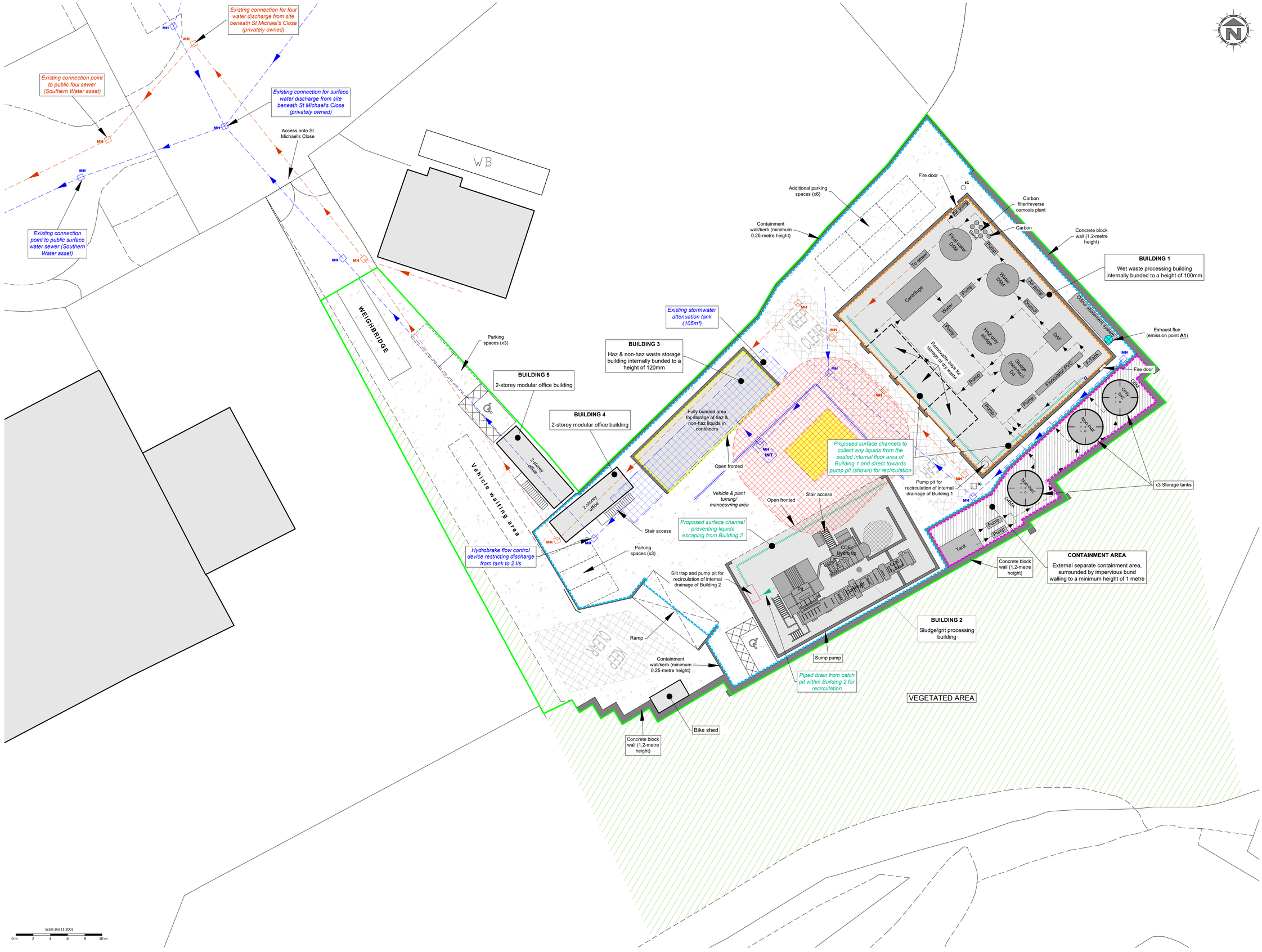
PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A4	CLIENT NO	JOB NO
1:1,250	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-02	-	Issued

DRAWN BY	CHECKED	DATE
RS	RS	19.06.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	08.11.23	RS/IA	Initial drawing
A	07.03.24	JH	Amendment
B	08.03.24	JH	Parking added
C	11.06.24	JH	Working amendment
D	19.06.24	RS	Application submission
E	26.06.24	RS	Quarantine area added

KEY:

- Permit boundary
- Containment Zone A (Building 1)
- Containment Zone B (Building 3)
- Containment Zone C (External tank storage area)
- Containment Zone D (Site-wide tertiary containment)
- INT — Full retention oil interceptor (fitted with penstock valve)
- Piped surface drainage (surface, foul, building)
- Linear surface channels (aco) - (surface, building)
- MH — Manhole (foul, surface)
- IC — Inspection cover (other services)
- Quarantine area (only used in the event of a fire and kept clear at all other times
- 6 metre separation distance around the quarantine area where no other combustible wastes will be stored

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
PERMIT LAYOUT PLAN

CLIENT
Elliott Environmental Drainage Ltd

PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A1	CLIENT NO	JOB NO
1:200	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-03	E	Issued

DRAWN BY	CHECKED	DATE
RS	RS	26.06.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
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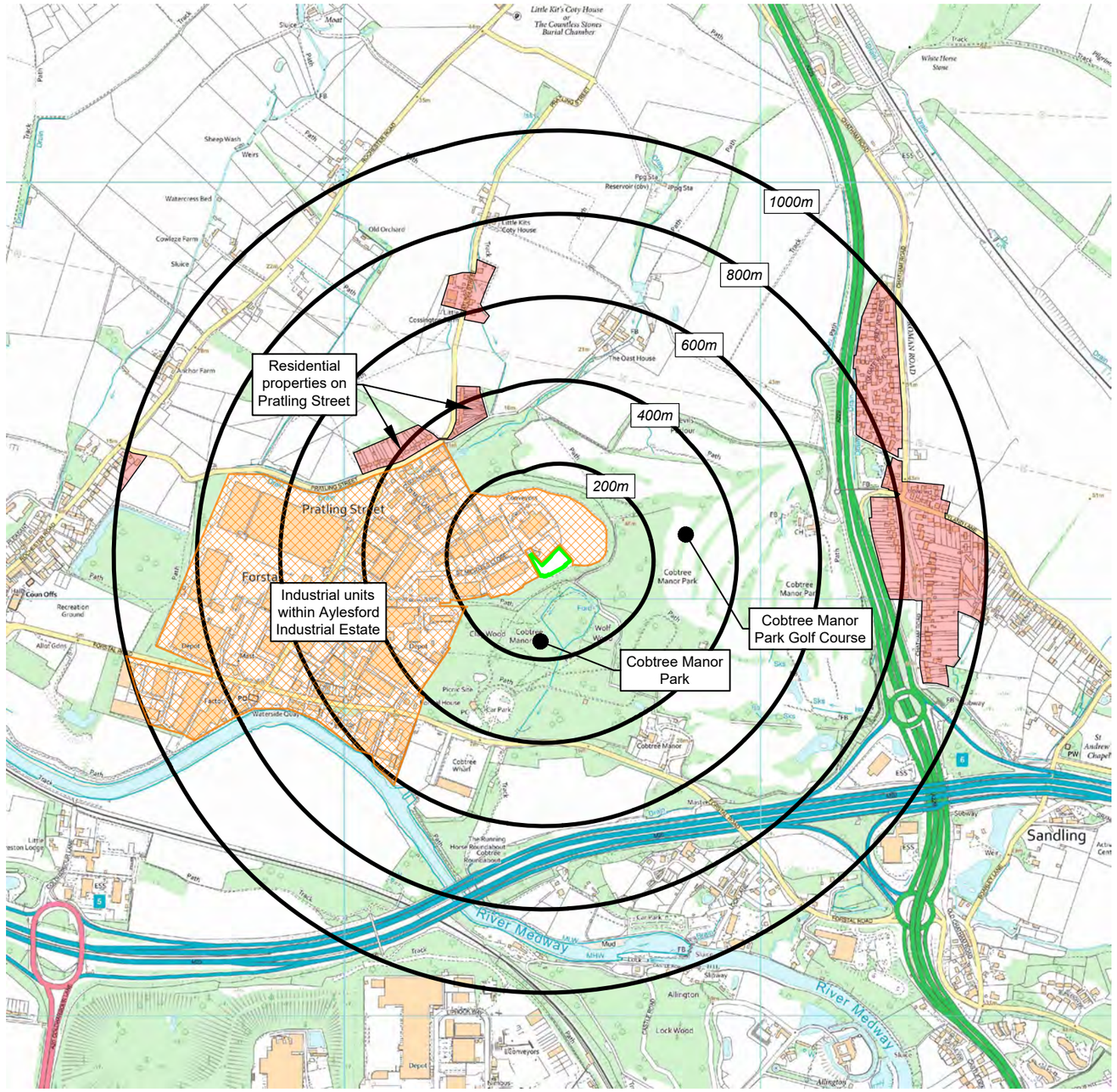
KEY:

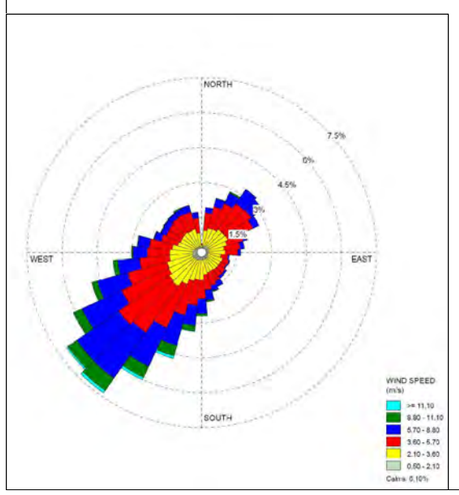
- Permit boundary
- Plymyard Dale (Main River)
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A roads
- Class B roads
- Class C roads
- Nearest fire hydrant
- Railway line
- School
- Woodland areas
- Protected sites (Ramsar, SSSI, SPA, SAC)
- Nature reserves



Scale Bar (1:12,500)

0 km 500 m 1 km

Compass Wind Rose for grid squares pertaining to the site (period 2019 - 2023)



NOTES

1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

REVISION HISTORY

Rev	Date	Init:	Description:
-	09.06.23	RS/IA	Initial Drawing
A	08.11.23	RS/IA	Boundary amendment
B	06.08.24	IA	Boundary amendment

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
RECEPTOR PLAN

CLIENT
Elliot Environmental Drainage Limited

PROJECT/SITE
St Michael's Close, Aylesford, Kent, ME20 7XE

SCALE @ A3	JOB NO	CLIENT NO
1:12,500	002	2499

DRAWING NUMBER	REV	STATUS
2499-002-04	B	Issued

DRAWN	CHECKED	DATE
RS/IA	RS	06.08.24

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Appendix II

Record Forms

Odour Diary				**Sheet No**
Name: **Telephone Number:**	**Address:**			
Date of odour:				
Time of odour:				
Location of odour, if not at above address:				
Weather conditions (dry, rain, fog, snow etc):				
Temperature (very warm, warm, mild, cold or degrees if known):				
Wind strength (none, light, steady, strong, gusting):				
Wind direction (e.g. from NE):				
What does it smell like? How unpleasant is it? **Do you consider this smell offensive?**				
Intensity – How strong was it? (see below 1-5):				
How long did go on for? (time):				
Was it constant or intermittent in this period:				
What do believe the source/cause to be?				
Any actions taken or other comments:				

Intensity (Detectability)

1 No detectable odour
2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)
3 Moderate odour (odour easily detected while walking & breathing normally)
4 Strong odour
5 Very strong odour (possibly causing nausea depending on the type of odour)

ELLIOT ENVIRONMENTAL DRAINAGE LIMITED
COMPLAINTS REPORT FORM (EEDL/RF/7)

Date Recorded:	**Reference Number:**
Name and address of caller	
Telephone number of caller	
Time and Date of call	
Nature of complaint (noise, odour, dust, other) (date, time, duration)	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other complaints relating to this report	
Any other relevant information	
Potential reasons for complaint	
The operations being carried out on site at the time of the complaint	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Environmental Management System (EMS)	
Date changes implemented	
Form completed by	
Signed	
Date completed	

COMPLAINT RECORDING PROCEDURE:

Any complaints received will be recorded on form EEDL/RF/7. This form will normally be completed, signed and dated by the Site Manager; if they are not available the Office Manager will complete the form.

1) The name, address and telephone number of the caller will be requested.

2) Each complaint will be given a reference number.

3) The caller will be asked to give details of:

    a) the nature of the complaint;
    b) the time;
    c) how long it lasted;
    d) how often it occurs;
    e) Is this the first time the problem has been noticed; and
    f) what prompted them to complain.

4) The person completing the form will then, if possible, make a note of:

    a) the weather conditions at the time of the problem (rain, snow, fog etc.);
    b) strength and direction of the wind; and
    c) the activity or activities taken place on the site at the time the noise was detected, particularly anything unusual.

5) The reason for the complaint will be investigated and a note of the findings added to the report.

6) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.

7) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be invited to contact Environment Agency and/or the Local Authority.

Note: Following any complaint the relevant management plan(s) will be reviewed to ensure appropriate actions are in place to counter any problems.

Permit Application Supporting Document

Appendix V

Environmental Noise Assessment and Noise Management Plan

Permit Application Supporting Document

Appendix VI

Accident Management Plan

ACCIDENT PREVENTION AND MANAGEMENT PLAN

St Michaels Close, Aylesford, Kent, ME20 7XE

Elliot Environmental Drainage Limited

Version:	1.1	**Date:**	01/07/2024		
Doc. Ref:	2499-002-F	**Author(s):**	DY/IA	**Checked:**	
Client No:	2499	**Job No:**	002		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

Oaktree Environmental Ltd, Lime House, 2 Road Two, Winsford, Cheshire, CW7 3QZ
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REGISTERED IN THE UK | COMPANY NO. 4850754

Review Log:

Version	Issue date	Author	Checked	Description	Date of Next Review of Document
1.0	28/07/2020	DY	-	Internal draft	
1.1	01/07/2024	IA	-	Second draft	

CONTENTS

List of Appendices:

Appendix I - Drawings

1 Introduction

1.1 This Accident Prevention and Management Plan (APMP) has been prepared as part of an Environmental Permit Application for the operation of a facility for the recovery of non-hazardous and hazardous wastes at St Michaels Close, Aylesford, Kent, ME20 7XE.

1.2 The site will be operated by Elliot Environmental Drainage Limited in accordance with a fully comprehensive Environmental Management System (EMS) and Bespoke Environmental Permit (EP). The wastes to be handled and treated/packaged on site will primarily include liquid-based wastes from interceptors and jetting sludges. A smaller quantity of liquid and solid wastes will be received for repackaging.

1.3 An operational layout of the facility is shown on the layout plan in Appendix I of this APMP.

1.4 This document primarily considers environmental risks associated with accidents and outlines appropriate mitigation. This has been prepared to meet permitting requirements and does not aim to provide detailed Health and Safety risk assessments as required separately through the necessary legislation.

1.5 Reference is made to the Site Environmental Management System (EMS). Any revisions to the EMS will be made also to Appendix III of this AMP and *vice versa*. The operator will consult the Environment Agency regarding any revisions to the Appendix III and to the corresponding sections of the EMS.

2 Emergency and Key Contacts

2.1 Emergency and key contact are outlined within the table below.

Table 2.1 – Key Contacts

Site Address:	St Michaels Close, Aylesford, Kent, ME20 7XE		
Site Operator:	Elliot Environmental Drainage Limited	**National Grid Ref:**	574503, 159085
CONTACT	**DESCRIPTION**	**OFFICE HOURS**	**OUT OF HOURS**
Elliot Environmental Drainage Limited	Permit Holder	0844 809 9965	tbc
Maidstone Hospital, Hermitage Lane, Maidstone, Kent, ME16 9QQ	Local NHS Hospital (Main)	01622 729000	999
	Accident & Emergency (A&E)	999	999
Dr Pile N R & Partner, White House, Mackenders Lane, Eccles, Aylesford, Kent, ME20 7HX	Local Doctor Surgery (GP)	01622 718558	999 or 112
Kent Police Maidstone Police Station, 7 Lower Stone St, Maidstone, ME15 6LL	Local Police Non-Emergency	0845 113 5000	999 or 112
	Police Emergency	999 or 112	999 or 112
Larkfield Fire Station New Hythe Lane, Aylesford, ME20 6PP	Fire and Rescue Service (in Emergency Dial 999)	01622 692121	999 or 112
Environment Agency Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH	Environmental Regulator	0370 850 6506	0800 80 70 60
Maidstone Borough Council Maidstone House, King Street, Maidstone, Kent, ME15 6JQ	General Enquiries	01622 602000	101, 999 or 112
South East Water Rocfort Road, Snodland, Kent, ME6 5AH	Mains water supplier	0333 000 0002	0333 0000365
Southern Water, Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX	Sewerage	03303030277	999 or 112
Oaktree Environmental Ltd - Lime House, 2 Road Two, Winsford, Cheshire CW7 3QZ	Secondary specialist waste and permitting compliance advisors	01606 558833	N/A

3 Potential environmental hazards

Table 3.1 – Potential environmental hazards and mitigation

Hazard	Pathway	Receptor	Mitigation Measures
Inadequate waste acceptance procedures	Airborne, land	Site operatives, visitors and local residents.	- The site will only accept conforming wastes onto the site. - The site has strict waste acceptance procedures which have been detail within the site's EMS
Waste Storage	Airborne, land and water	Site operatives, visitors and local residents.	- Waste will be restricted to storage times detailed within the EP.
Operational failure of plant, equipment, and infrastructure	Airborne, land and water	Site operatives, visitors and local residents.	- The operator undertakes daily visual monitoring and has a preventative maintenance schedule in place.
Emissions from Plant and equipment	Airborne, land and water	Site operatives, visitors, local residents and atmosphere.	- The operator undertakes daily visual monitoring and has a preventative maintenance schedule in place to ensure that plant and equipment are maintained in accordance with manufacturers recommendations.
Breach of storage tank(s)	Airborne, land and water	Site operatives, visitors, local residents, surface water, groundwater, soils.	- Any fuel tanks will be stored in a bunded area and on an impermeable concrete surface.
Incompatible Substances	Airborne, land and water	Site operatives, visitors, local residents, surface water, groundwater, atmosphere and soils.	- The site will only accept conforming wastes onto the site. - The site has strict waste acceptance procedures which have been detail within the site's EMS.
Failure of Main Services i.e electricity	Airborne	Site Operatives, visitors, local residents and atmosphere.	- Operational failure procedures are detailed in the site's EMS.
Site Security Failures/Vandalism	Airborne, land and water	Site operatives, visitors, local residents, surface water, groundwater, soils.	- Please refer to the EMS for details of the site security. - The site security will be inspected on a daily basis and any defects which impair the effectiveness of the security will be repaired to the same or better standard within a suitable timescale. All repairs will be noted on the site diary or daily

			inspections forms and repaired as soon as practically possible. - The security measures at the site are under constant daily review under the site's inspection regime. If unauthorised access becomes apparent as a problem at the site the security measures will be reviewed and improvements implemented.
Operator/Human Error	Airborne, land and water	Site operatives, visitors, local residents, groundwater, surface water, soil, and atmosphere.	- All staff are trained and undergo toolbox talks to reduce the impact of human error. - In instances of a human error, the site may suspend operations until the issue has been rectified and the member of staff will be re-trained accordingly.
Dust from waste handling operations and from traffic on internal roads.	Airborne	Site operatives, visitors, local residents, and atmosphere.	- Procedures for the control of dust are detailed in section 4.0 of the EMS.
Mud and debris on the public highway	Airborne	Local residents, road users, atmosphere.	- Procedures for the control of mud and debris are detailed in section 4.0 of the EMS. - The site operates in accordance with a DEMP Ref 2499-002-G.
Vehicle Collision	Airborne, land and water	Site operatives, visitors and local residents.	- All vehicle movements will be carried out under the supervision of an on-site operative.

4 Accident Risk and Mitigation

4.1 The following table outlines potential accidents that could occur and an outline of appropriate mitigation to avoid the accident occurring and in the event an accident should occur, measures to minimise the impact.

4.2 In accordance with the relevant guidance, the likelihood and consequences of each accident/incident have been outlined using the definitions described within the following tables.

Table 4.1 – Likelihood of Accident/Incident

Abbreviation	Probability	Evaluation
1	Very likely	Could occur during any working day
2	Likely	Could occur regularly
3	Possible	Event possible
4	Unlikely	Event very unlikely

Table 4.2 – Consequences of Accident/Incident

Abbreviation	Consequences
A	Minor Injury
B	Major Injury
C	Death
D	Air Pollution
E	Water Pollution
F	Pollution of Land

Accident/Incident Description	Likelihood of Accident/Incident Occurring	Environmental Consequences of Accident/Incident	Measures to Prevent Accident/Incident Occurring	Measures to be Taken in Event of Accident/Incident Occurring to Reduce Harm
Fire causing the release of fire and polluting materials to air (smoke or fumes). Incident could occur as a result of arson or other incident	3	A,B,C,D	• Site to be securely fenced and monitored 24-hours per day to prevent unauthorised access • Environmental Management System in place containing appropriate measures to reduce risk of fire during routine operation.	• Reference should be made to Environmental Management System (EMS) for procedures to be taken in the event of fire to reduce harm
Vandalism	3	A,B,C,D	• Site to be securely fenced and monitored 24-hours per day to prevent unauthorised access	• Inspection of all plant and machinery on-site for damage • In the event that damage to plant and machinery identified which may lead to pollution, operation of equipment will cease until damage is rectified/repaired • In the event of spillages/leaks as a result of equipment damage, spill response procedure within site EMS will be followed • Should spillages be considered likely to result in significant off-site impacts, the EA will be informed. • In the event of more serious event such as fire, the fire response procedures within the site EMS will be followed

Accident/Incident Description	Likelihood of Accident/Incident Occurring	Environmental Consequences of Accident/Incident	Measures to Prevent Accident/Incident Occurring	Measures to be Taken in Event of Accident/Incident Occurring to Reduce Harm
Equipment malfunction/breakdown	3	A,B,E,F	• Planning Preventative maintenance schedules to be in place for all plant and machinery to be used • Plant and equipment inspected regularly to ensure in good working order	• In the event of equipment malfunction/breakdown resulting ins spillage, spill response procedures within site EMS will be followed • Use of plant/machinery will cease until fault can be rectified.

Accident/Incident Description	Likelihood of Accident/Incident Occurring	Environmental Consequences of Accident/Incident	Measures to Prevent Accident/Incident Occurring	Measures to be Taken in Event of Accident/Incident Occurring to Reduce Harm
Spillages of wastes/fuels	3	A,B,E,F	• The site has procedures in place for fuel/oil storage on site are as follows: o The containers used for the storage of hazardous fluids will be surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank. o All pipework and associated infrastructure will be enclosed within the bund. o A lock will be fitted to the tank valve to prevent unauthorised operation. o Any storage of oil will comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 SI No.2954 or any subsequent legislation. o All valves and gauges on the tank will be constructed to prevent damage caused by frost. • The tanks will be clearly marked showing their capacity and product within	• In the event of spillages, please refer to Section 5.0 of the site's EMS.
Flooding/abnormal weather such as heavy rainfall	3	A,B,C,D,E,F	• Site has drainage system in place to managed clean and foul drainage. • Site is located within Flood Zone 1 and therefore at lowest risk of flooding. • In the event of heavy rainfall, fully treated water will not be discharged to the sewerage system to prevent surcharging of the foul sewer	• Please refer to Section 5.0 of the sites EMS which details the procedures taken in the event of high winds, poor visibility, droughts and high rainfall or flood events. • The site will cease operations during extreme weather events.

Accident/Incident Description	Likelihood of Accident/Incident Occurring	Environmental Consequences of Accident/Incident	Measures to Prevent Accident/Incident Occurring	Measures to be Taken in Event of Accident/Incident Occurring to Reduce Harm
Explosion Zones	3	A,B,C,D,E,F	• Given the nature of the process, there is unlikely to be the requirement for any explosion zones.	• In the event of an emergency i.e. an explosion please refer to Section 5.0 of the sites EMS which has detailed emergency and contingency procedures outlining how the site will deal with an emergency.

5 Reporting

5.1 All incidents/ accidents are responded to promptly with a clear step by step procedure. This includes informing the site management and the emergency services of the incident.

5.2 In addition to obligations imposed by RIDDOR '13 (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013) the permit holder will notify the EA of any serious injuries to employees of Elliot Environmental Drainage Limited, other site users or members of the public arising as a result of operations on site. Minor injuries such as cuts and grazes etc. will be recorded in the accident book on site. Separate procedures will be used for different types of emergency. An emergency at the site is defined by the site management as follows:

"Any incident which is likely to result in harm to human health or pollution of the environment or serious breach of permit conditions and serious detriment to the amenities of the locality."

5.2.1 For all emergency situations, the deposit of any further waste will be suspended where necessary to allow action to be taken safely. If necessary, staff and other users of the site will be evacuated to an area which is a safe distance away from the hazards. Staff handling the emergency will be provided with and trained to use the necessary PPE (personal protective equipment) unless the manager instructs them that the hazard is too severe and outside help is needed from the emergency services or specialist waste contractors. A visitor's book will be kept to check who is on site at all times.

6 Training

6.1 Staff Training

6.1.1 Operational staff will be subject to site inductions which includes basic emergency procedures by site management. If necessary, a third-party consultant will be contacted to carry out additional training.

6.1.2 A full test (drill) of the controls and procedures in this document will be carried out every 12 months to test that the plan works. The outcome and any follow up training for staff will be documented in the site diary and relevant forms in the EMS.

6.1.3 Further details on training are detailed within the site's EMS.

6.2 Toolbox talks

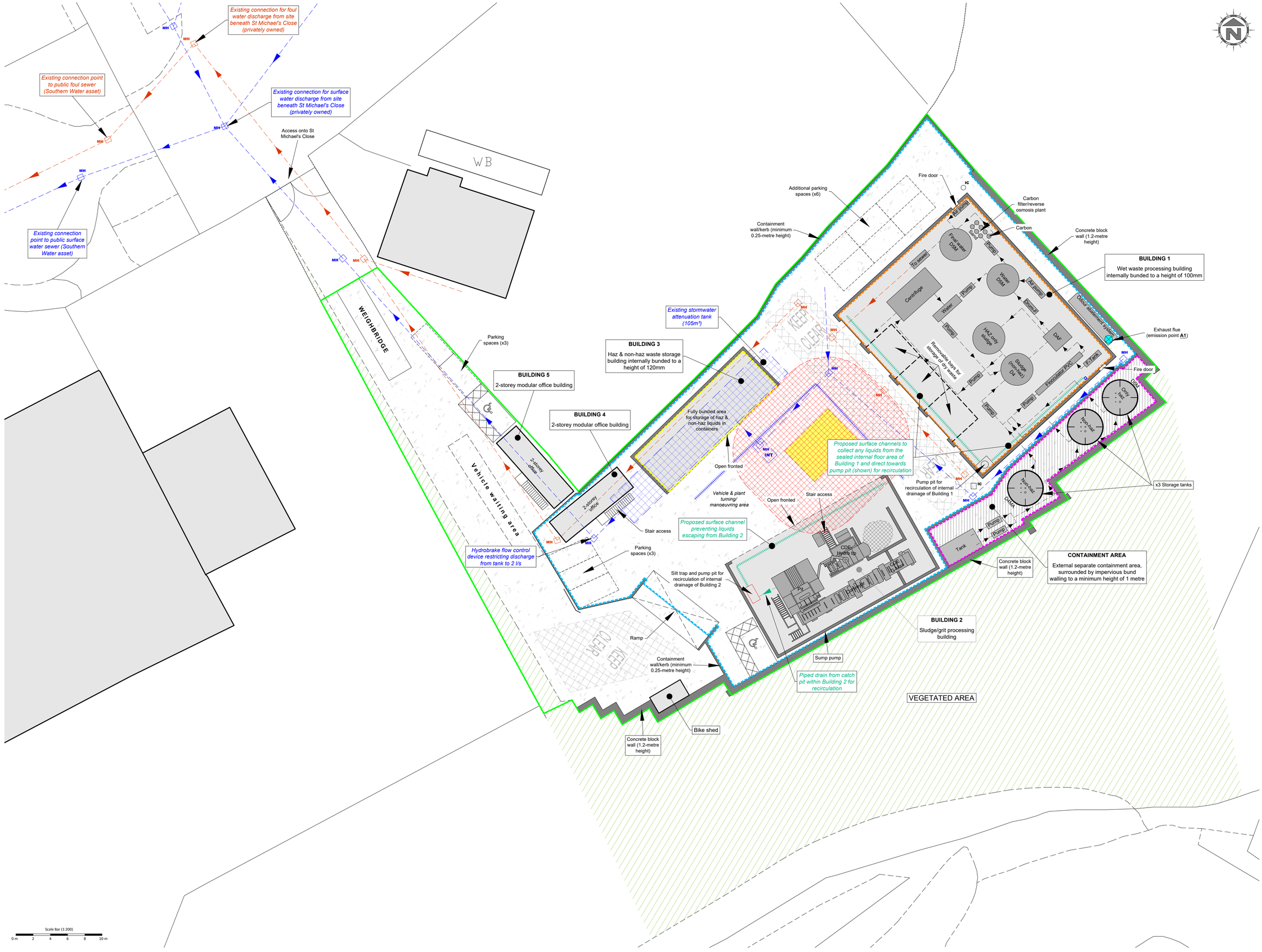
6.2.1 All operational staff including will receive training / toolbox talks by trained site management to minimise the chance of an accident occurring, which will also include the procedures within other management plans.

7 Review of APMP

7.1 This APMP will be reviewed annually, or sooner in the event of significant accident/incident.

Appendix I

Drawings



NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	08.11.23	RS/IA	Initial drawing
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C	11.06.24	JH	Working amendment
D	19.06.24	RS	Application submission
E	26.06.24	RS	Quarantine area added

KEY:

- Permit boundary
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- Containment Zone C (External tank storage area)
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- Piped surface drainage (surface, foul, building)
- Linear surface channels (aco) - (surface, building)
- MH — Manhole (foul, surface)
- IC — Inspection cover (other services)
- Quarantine area (only used in the event of a fire and kept clear at all other times
- 6 metre separation distance around the quarantine area where no other combustible wastes will be stored

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
PERMIT LAYOUT PLAN

CLIENT
Elliott Environmental Drainage Ltd

PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A1	CLIENT NO	JOB NO
1:200	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-03	E	Issued

DRAWN BY	CHECKED	DATE
RS	RS	26.06.24

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Permit Application Supporting Document

Appendix VII

Environmental Risk Assessment

ENVIRONMENTAL RISK ASSESSMENT

St Michaels Close, Aylesford, Kent, ME20 7XE

Elliot Environmental Drainage Limited

Version:	1.2	**Date:**	06/08/2024		
Doc. Ref:	2499-002-E	**Author(s):**	DY	**Checked:**	EED
Client No:	2499	**Job No:**	002		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

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REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	21/07/2020	DY		Internal draft
1.1	01/07/2024	DY/IA		Draft for client
1.2	06/08/2024	DY/IA		Internal amendments

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List of Appendices:

Appendix I - Drawings

1 Introduction

1.1 This Environmental Risk Assessment (ERA) considers the potential and actual risks associated with the use of the site at St Michaels Close, Aylesford, Kent, ME20 7XE.

1.2 The site will be operated by Elliot Environmental Drainage Limited in accordance with a fully comprehensive Environmental Management System (EMS) and Environmental Permit (EP). The site will be operated as a facility for the treatment and packaging of non-hazardous and hazardous wastes.

1.3 An operational layout of the facility is shown on Drawing No. 2499-002-03 in Appendix I of this ERA.

1.4 All environmental risks identified in this document should be acted upon accordingly by site management to ensure all environmental risks can be appropriately managed/controlled.

1.5 This document primarily considers environmental risks associated with the site. This does not aim to provide detailed Health and Safety risk assessments as required separately through the necessary legislation.

1.6 Housekeeping

1.6.1 Regular cleaning of operational areas (i.e. minimum once daily) such as site surface, roads, drainage channels etc. will be carried out using mobile plant and water supplies to discourage odour/dust/pest generation from onsite materials. The materials will then be placed in a sealed rejected waste skip for removal.

1.6.2 In addition to daily visual monitoring of the site, site management will monitor the integrity of buildings on a quarterly basis. In the event that there are any issues resulting in odour/dust escaping from the building then maintenance works will be carried out within 48 hours.

1.6.3 The operator will avoid emissions by committing to the following housekeeping:

1. Maintain a clean, well-organised site (Daily)
2. Jet spray and disinfect storage bays when emptied (Monthly)
3. Clean equipment that has been in contact with odorous/dust generating materials (Daily)
4. Carry out a deep clean of the reception / processing building once a quarter and record this in the site diary (Quarterly)
5. Concrete floors designed in a way that allows easy cleaning. Site surfaces and haul roads dampened to prevent adsorption of dust and odour producing residues (Daily)
6. Solid waste storage containers will be robust, easily cleanable, designed for safe handling, and constructed to prevent loss of wastes from the equipment during storage. If such equipment is used to store other wet or liquid producing wastes, or wastes composed of fine particles, such equipment shall in all cases be non-absorbent and leak-resistant.

2 Site Receptors

2.1 A Receptor Plan (Drawing No. 2499-002-04) has been provided to highlight all key receptors within 1 km of the site as is shown in Appendix I.

2.2 List of receptors

2.2.1 The receptors shown on the receptor plan are also shown in the table below with approximate distances to these properties.

Direction from Boundary	Receptor	Approximate distance from site boundary (m)
North, South, West	Numerous industrial and commercial uses on Aylesford Business Park	Adjacent/Within 700m
North-North-West	Residential properties off Pratling Street	380m
North	Residential properties off Pratling Street	450m
East, East-South-East, East-North-East	Residential properties off Chatham Road/Old Chatham Road	750m
West, West-North-West	Residential properties off Rochester Road	900m
South/East	Cobtree Manor Park	Adjacent
South-East	Premier Inn, Maidstone	820m
South-East	Village Hotel Maidstone	900m
South-West	River Medway	580m
North, North-North-West, North-North-East	Scattered residential properties	600-1000m
East/North	Cobtree Manor Park Golf Course	200m
South	Unamed Ancient Woodland	Adjacent
South-East	Unamed Ancient Woodland	80m
North-East	Unamed Ancient Woodland areas	100m, 260m, 950m
North-West	Unamed Ancient Woodland	650m
South-South-West	Unamed Ancient Woodland	740m
South-West	Unamed Ancient Woodland	900m

2.3 Complaints Procedure

2.3.1 The site has a complaints procedure in place. If any complaints (dust/odour/noise etc..) are received (by resident, adjacent receptor, LA or EA), the relevant operator will complete a 'complaints and events log' and complaints form. The operator would also be required to make a note of any unavoidable events plant/equipment malfunctions in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the council/EA or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed to the cause of the complaint.

2.3.2 There is no threshold for complaints, once the site receives any complaint it will be reviewed, and the site will act accordingly. If the source is within the site's control, the site manager, compliance manager or TCM will take appropriate action in terms of abatement to ensure that the issue/nuisance is controlled and won't happen again; this may take the form of the following:

- Investigating the source of the nuisance to prevent a re-occurrence.
- Suspending operations which are not being conducted using the required control measures (as detailed in the site-specific management plan).
- Additional use of the abatement/control measures.
- Logging findings of the above in the site diary / complaints form and also in the reporting template within the EP.
- Report actions to the complainants and/or EA.

3 Environmental Risk Assessment Model

3.1 Fundamental considerations

3.1.1 **Source/Hazard:** A property or situation that in particular circumstances could lead to harm.

3.1.2 **Consequences:** The adverse effects or harm as the result of realising a hazard which causes the quality of human health or the environment to be impaired in the short or long term.

3.1.3 **Risk:** A combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

3.2 Pathway

3.2.1 Important in the assessment of a particular risk(s) and to inform the subsequent management of the risk(s) is the identification of the pathway(s) through which the risk may affect the identified receptor(s). The following are examples of pathways:

- Air
- Ground
- Water
- Direct contact / exposure

3.3 Consequences

3.3.1 The following table highlights the consequences of the hazard(s) identified and the abbreviations for each as used in the Risk Assessment Table in Section 3:

Abbreviation	Consequences
A	Minor Injury
B	Major Injury
C	Death
D	Air Pollution
E	Water Pollution
F	Pollution of Land

3.4 Effects of consequences

3.4.1 In order to quantify the level of risk and identify the appropriate management procedures, the potential effects must be considered, as outlined in the table below:

Abbreviation	Consequences	Management Requirements
S	SEVERE	In all cases
Mo	MODERATE	In most cases
Mi	MILD	Occasionally
N	NEGLIGIBLE	No

3.4.2 Note: “Management” is the action required to reduce the risk of a hazard causing a problem on site. Contingency measures are procedures which are in place to reduce the consequences of a hazard.

3.5 Risk estimation and evaluation (probability/frequency of occurring hazard)

3.5.1 The following table allows the likelihood of an occurrence of an identified risk to be assessed:

Abbreviation	Probability	Evaluation
1	Very likely	Could occur during any working day
2	Likely	Could occur regularly
3	Possible	Event possible
4	Unlikely	Event very unlikely

3.6 Risk assessment outcome (combination of probability & consequence)

3.6.1 The following table shows the resultant risk of an identified hazard or potential situation. This uses the hierarchy of both probability and consequence to assess the level of risk. The level of risk determines what level of management would be required in order to reduce the risk of occurrence and/or scale.

		Consequence			
		S	Mo	Mi	N
Probability	1	High	High	Medium	Low
	2	High	Medium	Low	Near-Zero
	3	Medium	Low	Near-Zero	N/A
	4	Low	Near-Zero	N/A	N/A

3.6.2 Where the risk assessment outcome is high, first-level management of the risk is essential, i.e. removal of hazard, implementation of major infrastructure/structural design measures to contain the risk/hazard and company policy changes to incorporate the management of the risk. All risk management measures must be supplemented with detailed induction training, spot training and tool-box talks to ensure all site staff and users are made fully aware of the risk/hazard, all potential consequences and necessary management and contingency procedures.

3.6.3 Where the risk assessment outcome is medium, the management of the risk should be tackled by management or delegates. If removal of the hazard is not possible, management will normally be met through implementing minor structural design measures or by imposing procedures for the prevention of occurrences which will be conveyed to all site staff through the appropriate training, including any contingency measures/procedures.

3.6.4 Where the risk assessment outcome is low, the management of the risk can be done wholly through appropriate training to site staff including any contingency measures/procedures.

3.6.5 Where the risk assessment outcome is near-zero, site staff should be made aware of the possibility of an occurrence and contingency measures should be readily available to all staff should they be required.

4 Risk assessment table

4.1 The following pages contain the site-specific risk assessment for the site with appropriate remedial actions, recommendations and comments included for each identified hazard, potential contaminant or situation.

4.2 The table also contains references to the appropriate section(s) of the site's EMS for additional management procedures.

4.3 As discussed in Section 3.6 above, all situations which identify a risk from Low –High should be incorporated into the staff/visitor training schedule, where appropriate and acted on as required.

SEE TABLES OVERLEAF

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Dust / particulates	Site surfaces (dry and windy weather) Storage of solid wastes Importation and export of solid wastes Waste treatment operations	Air	Site personnel / visitors Surrounding site users / occupiers (see section 2.2) Surface waters Flora & fauna (ecology) Woodland areas	D,E,F	Mi - Mo	3	Low to near zero	The EMS has specific training measures for staff contingencies in the extremely unlikely event of dust generation. Given the nature of loads accepted at the site i.e. predominantly liquid based wastes, the manner in which they are delivered to the site, i.e. within a building, there is a limited potential for emissions of dust to air. The site will also accept a much smaller quantity of dry hazardous wastes and hazardous liquids contained within IBCs which are loaded into a separate building for storage. Based on the above it is considered that there will not be a significant generation of dust. The physico-chemical treatment operations are to be located within a building operated under negative pressure, served by dedicated abatement plant, providing mitigation of fugitive emissions such as dust. Site surfaces will be impermeable concrete therefore reducing the risk of dust arising from unsurfaced areas. Loads delivered to site will either be contained within sealed tanker lorries or sheeted on arrival and egress from the site. All operations are situated within buildings with the exception of the external storage tanks. Drop heights will be kept to a minimum. Please refer to the complaints procedure detailed in section 2.3 of this risk assessment which will always be in place at the site. Housekeeping schedule to be in place (detailed in section 1.6) The site will ensure that dust is continuously managed. The site will implement a continuous monitoring regime to identify any potential for dust leaving the site boundary.

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
								Loads will be sheeted (if applicable) Main tipping/reception/storage/processing areas are located internally. The above measures will ensure that potential dust particles are controlled and contained within the facility. All onsite monitoring will be continuous throughout the operational day by site operatives. In addition to this, the site will also undertake daily inspections which are recorded, these will be undertaken by site management or the TCM. If during the inspections it has become apparent that dust is migrating off site (which will be evident as part of a visual inspection), the site will implement one of/or all of the reactive/control measures detailed below. If complaints are received by surrounding receptors or if dust is apparent beyond the site boundary following the daily inspections, the operator will implement further control measures. The above measures cover all potential dust sources and mitigation measures in further detail which will minimise potential impacts on the sensitive receptors detailed in section 2.2 and the 'receptor' column of this table.
Odour	Delivery and export of wastes from site Storage and treatment of wastes Drainage Abnormal operation	Air	Site personnel / visitors Surrounding site users / occupiers (see section 2.2) Residential receptors (see section 2.2)	D	Mi - Mo	3	Low to near zero	Reference should be made to the operator's odour management plan (2499-002-D) for details of comprehensive odour controls in place. The site will not accept any putrescible waste. Procedures for olfactory monitoring. Complaints procedure in place. Training provided to site staff. Please refer to the complaints procedure detailed in section 2.2 of this risk assessment which is always in place at the site.

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
								Exhaust from main processing building abated by carbon filtration system, with residual air diluted and dispersed through external flue. Procedures for liaison with neighbours included within OMP in the event of significant, but temporary odour releases. Contingency measures included within OMP in the event of abnormal operation which may lead to significant odour Housekeeping schedule in place (detailed in section 1.6)
Litter	Stockpiles of light waste Unsheeted / poorly sheeted delivery vehicles Poor housekeeping	Air	Site personnel / visitors Surrounding site users / occupiers (see section 2.2) Surface waters Flora & fauna (ecology) Woodland areas	D,E,F	Mi - mo	3	Low to near zero	Loads will either be within sealed tankers or be sheeted/covered, as applicable. Daily inspections of the site and areas in the immediate vicinity of the site boundary for litter. Waste accepted and stored will generally not contain 'litter'.
Noise/vibration	Mobile and fixed plant used for the storage and processing waste Delivery of waste material to the site i.e. tipping of waste Third party and on site vehicle drivers 'revving' engines	Air or ground by vibration	Surrounding site users / occupiers (see section 2.2) Flora & fauna (ecology)	A, D	Mi - Mo	3	Low to near zero	Reference should be made to the operator's noise & vibration management plan (2499-002-NVMP) for detailed noise control measures. The principal controls are summarised below. Drop heights will be kept to a minimum to minimise noise / vibration Management will ensure that all loading plant operated is functioning suitably i.e. moving parts to be regularly lubricated. Operatives will be informed to turn off engines when the plant is not in use and no revving of engines will be permitted at the site.

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
								Any malfunctions in plant i.e. missing screws/bolts which result in excessive noise will be decommissioned until an alternative loading plant sourced. Please refer to the complaints procedure detailed in section 2.2 of this risk assessment which is always in place at the site If repairs to the site are required, the work is to be undertaken with due regard for the possible noise nuisance and during the normal working day. In the event of major repair work being undertaken which is likely to cause significant noise and disruption, neighbouring residents and the local planning authority/EA will be notified in advance.
Fire/ smoke / particulates	Plant exhausts Storage of wastes Malfunction of fixed and mobile plant	Air, direct contact	Site personnel / visitors Surrounding site users / occupiers (see section 2.2) Surface waters Flora & fauna (ecology) Woodland areas	A to F	Mi to S	3	Medium to low	No fires on site. No smoking permitted on site. Good site security. Storage volumes in line with FPP in terms of pile sizes and storage durations. Preventative maintenance procedures for plant/equipment. Detailed fire prevention plan in place. Reference should be made to the operator's fire prevention plan (2499-002-C).

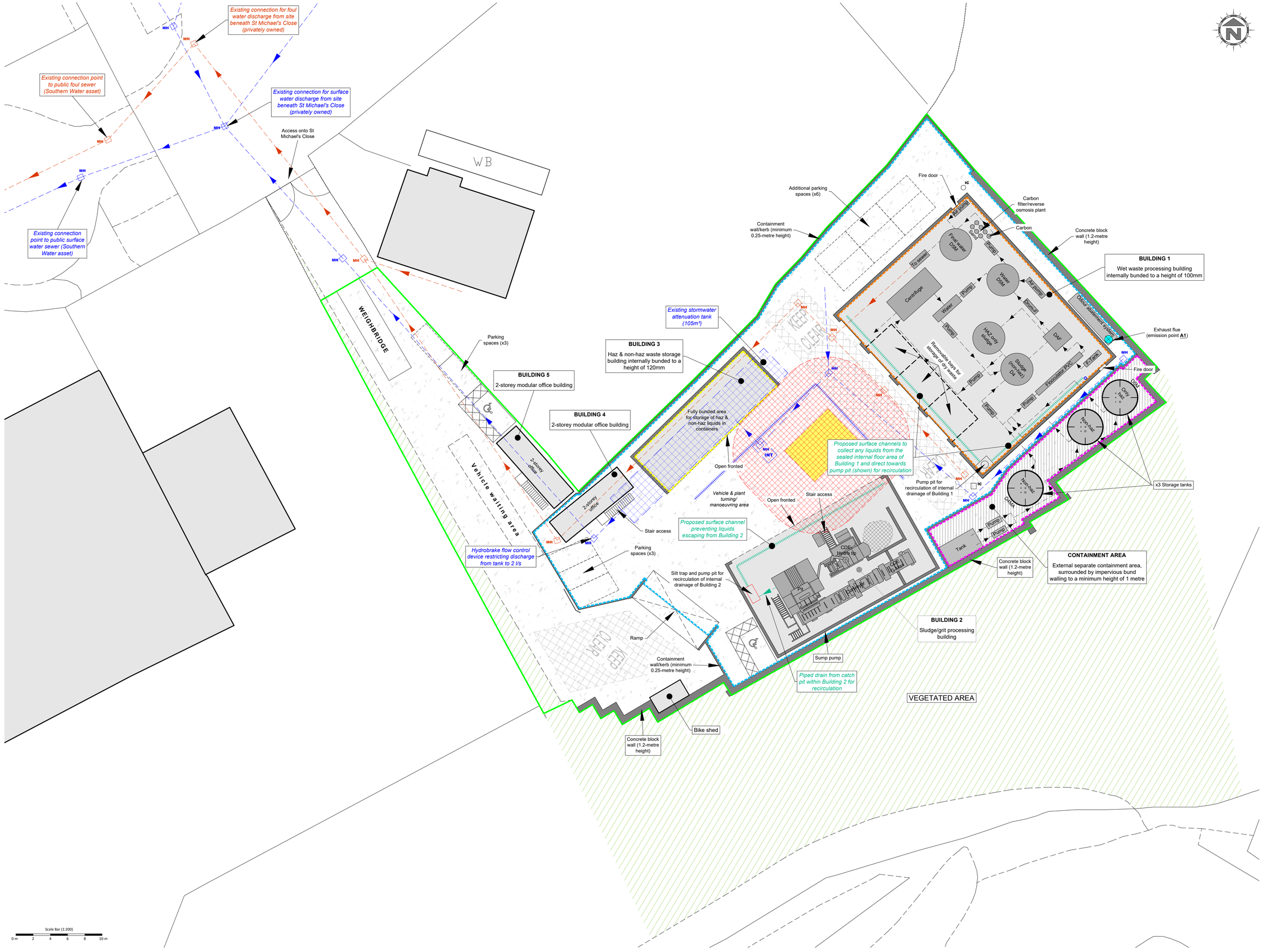
Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Vehicle collision/ accident	Mud on roads from waste storage & vehicle bodies Poor visibility Spillages of oils/fluids causing vehicles to skid Lack of PPE worn by staff	Direct contact	Site personnel / visitors Vehicle users Pedestrians	A to F	Mi to S	3	Medium to low	Good housekeeping/ vehicle management. An accident logbook should be kept for all incidents. HSE compliant risk assessments for all site activities to identify situations which may lead to harm for site users. Appropriate signage throughout the site.
Leachate	Stored wastes	Ground	Surface waters Flora & fauna (ecology) Woodland areas	E, F	Mi to S	3	Medium to low	All waste stored at the site is on an impermeable concrete surface with a sealed drainage system, or within a bunded area. Foul water from site connects to the existing foul sewer system. All surface water from the external yard and clean surface water from roofs drain into the existing drainage system. Regular (minimum daily) checks of site surface infrastructure for cracks and area cordoned off until repairs have taken place, if applicable. Any spillages identified will be dealt with in accordance with spillage procedures and sill kits will be available at the site.
Impact/injury	Collapse of stored materials/ falling materials	Direct contact	Site personnel/ visitors	A to C	Mi to S	3	Medium to low	Drop heights will always be kept to a minimum. Appropriate PPE to be issued to all site staff and available in the main site office. Staff training and handling procedures in place. The site benefits from a standalone Accident Prevention and Management Plan (doc ref: 2499-002-F)

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Hydrocarbons /VOCs	Unbunded fuel tanks Drips when refueling During delivery Leakage from stored drums Plant failure Oils/hydrocarbons recovered from solid and liquid wastes Abatement system	Ground - direct contact, ingestion Inhalation (of volatiles)	Surrounding site users / occupiers (see section 2.2) Surface waters Flora & fauna (ecology) Woodland areas	A, B, C, D, E, F	Mi to S	3	Medium to low	Any fuel tanks (and pipework) to be stored within a bunded area and locked when not in use. Ensure that all fuel storage continue to be stored securely. Spill kits kept close to source(s) of hazards. Preventative maintenance schedule for plant/machinery. Any spillages identified will be dealt with in accordance with spillage procedures and spill kits will be available at the site. Concrete surfaced yard and sealed drainage system will reduce the impacts of any spills entering surface waters or protected sites. Regular (minimum daily) checks of site surface infrastructure for cracks and area cordoned off until repairs have taken place, if applicable Carbon filtration system to be used to abate VOCs.
Water separated from liquid and solid wastes	Liquid and solid waste treatment plants	Ground	Surface waters Flora & fauna (ecology)	D,E,F	Mi to mo	3	Low to near zero	Water which has been separated from liquid and solid wastes will be disposed of via the sealed drainage system to sewer.
Operation of treatment plants	Waste treatment plant	Gound, air	Surrounding site users / occupiers (see section 2.2) Surface waters Flora & fauna (ecology) Woodland areas	D,E,F	Mi to Mo	3	Low to near zero	The treatment plant will be predominantly located internally and comprises sealed vessels for the storage of liquid and sludge wastes. The wastes and sludges will be tipped directly into the hydro tip and g:max for initial processing prior to being pumped into the treatment facility. The building will benefit from a Local Exhaust Ventilation system which will extract the air via a series of active carbon filters for emissions control, with are exhausted via an external elevated flue for dilution and dispersion of residual emissions.

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Hazardous waste acceptance/ storage areas	Acceptance and storage of waste	Ground, air	Surrounding site users / occupiers (see section 2.2) Surface waters Flora & fauna (ecology) Woodland areas	D,E,F	Mi to mo	3	Low to near zero	Hazardous waste comprises solid and liquid wastes. Liquid wastes will be stored in sealed tanks/vessels to prevent the release of potential odorous emissions. The waste reception area is fully bunded with a canopy and drainage which will minimise dust and odour during loading and reception operations. The hazardous waste packages (i.e. dry and liquid) will be stored in building canopy to prevent the ingress of rainwater. The building benefits from a fully bunded area and a sump which will collect any potential liquids within the area. The site will have a trade effluent consent in place which controls discharges to sewer. **<u>Secondary containment</u>** The site will implement the required secondary containment which considers the industry standards detailed in Ciria guidance c736 – containment system for the prevention of pollution.

Appendix I

Drawings



NOTES

Drawing for indication only. Reproduced with the permission of the controller of H.M.S.O.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	08.11.23	RS/IA	Initial drawing
A	07.03.24	JH	Amendment
B	08.03.24	JH	Parking added
C	11.06.24	JH	Working amendment
D	19.06.24	RS	Application submission
E	26.06.24	RS	Quarantine area added

KEY:

- Permit boundary
- Containment Zone A (Building 1)
- Containment Zone B (Building 3)
- Containment Zone C (External tank storage area)
- Containment Zone D (Site-wide tertiary containment)
- INT — Full retention oil interceptor (fitted with penstock valve)
- Piped surface drainage (surface, foul, building)
- Linear surface channels (aco) - (surface, building)
- MH — Manhole (foul, surface)
- IC — Inspection cover (other services)
- Quarantine area (only used in the event of a fire and kept clear at all other times
- 6 metre separation distance around the quarantine area where no other combustible wastes will be stored

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
PERMIT LAYOUT PLAN

CLIENT
Elliott Environmental Drainage Ltd

PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A1	CLIENT NO	JOB NO
1:200	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-03	E	Issued

DRAWN BY	CHECKED	DATE
RS	RS	26.06.24

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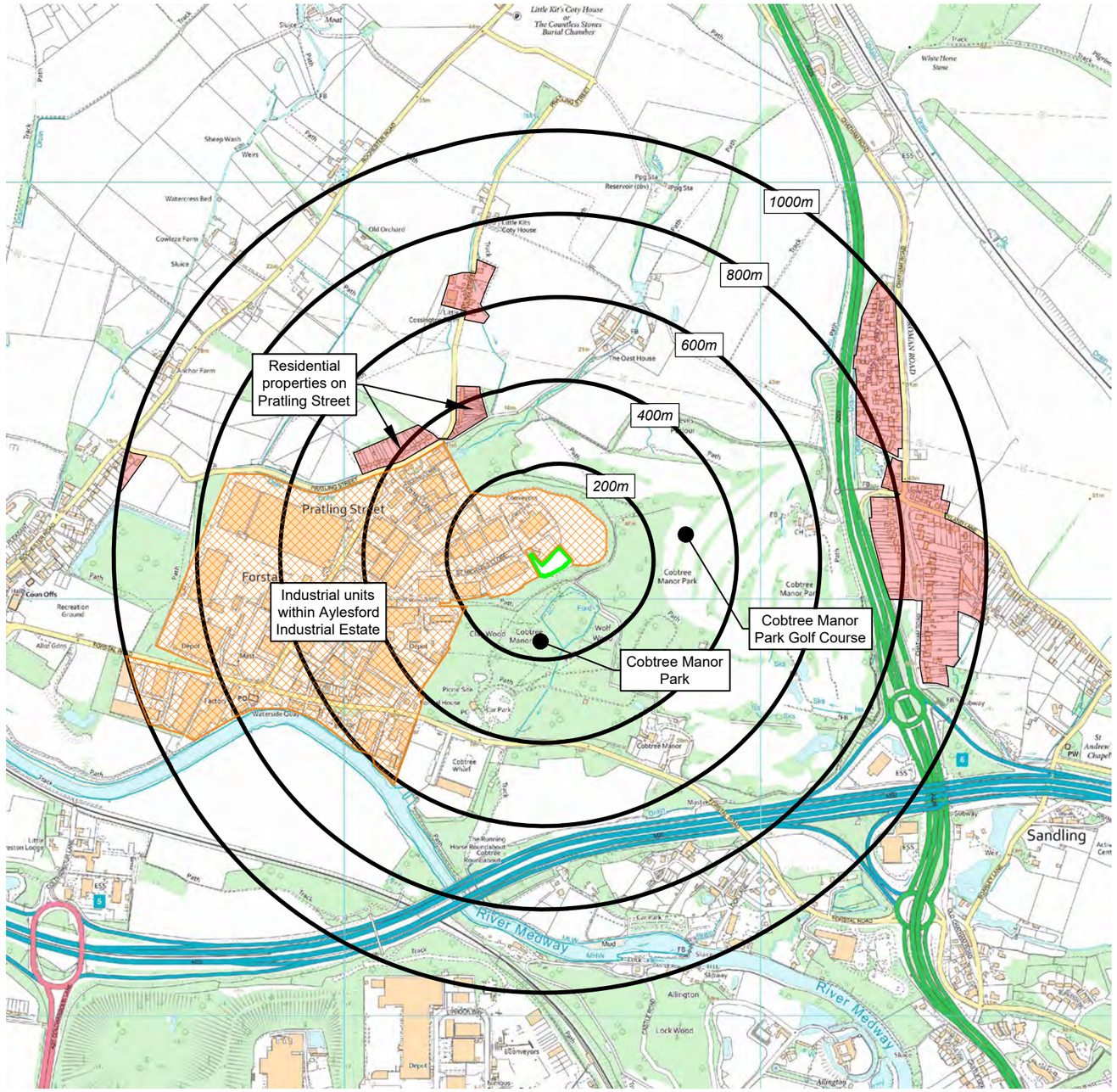
KEY:

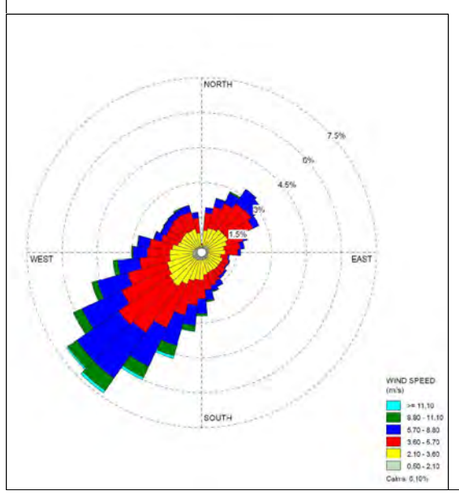
- Permit boundary
- Plymyard Dale (Main River)
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A roads
- Class B roads
- Class C roads
- Nearest fire hydrant
- Railway line
- School
- Woodland areas
- Protected sites (Ramsar, SSSI, SPA, SAC)
- Nature reserves



Scale Bar (1:12,500)

0 km 500 m 1 km

Compass Wind Rose for grid squares pertaining to the site (period 2019 - 2023)



NOTES

1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

REVISION HISTORY

Rev	Date	Init:	Description:
-	09.06.23	RS/IA	Initial Drawing
A	08.11.23	RS/IA	Boundary amendment
B	06.08.24	IA	Boundary amendment

Oaktree Environmental Ltd
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DRAWING TITLE
RECEPTOR PLAN

CLIENT
Elliot Environmental Drainage Limited

PROJECT/SITE
St Michael's Close, Aylesford, Kent, ME20 7XE

SCALE @ A3	JOB NO	CLIENT NO
1:12,500	002	2499

DRAWING NUMBER	REV	STATUS
2499-002-04	B	Issued

DRAWN	CHECKED	DATE
RS/IA	RS	06.08.24

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Permit Application Supporting Document

Appendix VIII

Site Condition Report

SITE CONDITION REPORT (FROM H5 TEMPLATE)

St Michaels Close, Aylesford, Kent, ME20 7XE

Elliot Environmental Drainage Limited

Version:	1.0	**Date:**	19 May 2023		
Doc. Ref:	2499-002-J	**Author:**	IA	Checked:	EED
Client No:	2499	**Job No:**	002		

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1.0	19/05/2023	IA	--	Application Copy

SITE CONDITION REPORT TEMPLATE

For full details, see H5 *SCR guide for applicants* v3.0 May 2013

COMPLETE SECTIONS 1-3 AND SUBMIT WITH APPLICATION

DURING THE LIFE OF THE PERMIT: MAINTAIN SECTIONS 4-7

AT SURRENDER: ADD NEW DOC REFERENCE IN 1.0; COMPLETE SECTIONS 8-10; & SUBMIT WITH YOUR SURRENDER APPLICATION.

1.0 SITE DETAILS	
Name of the applicant	**Elliot Environmental Drainage Limited**
Activity address	**St Michaels Close, Aylesford, Kent, ME20 7XE**
National grid reference	**Please refer to Permit**

Document reference and dates for Site Condition Report at permit application and surrender	**2499-002-J** **Dated 19 May 2023**

Document references for site plans (including location and boundaries)	**Permit Boundary Plan 2499-002-02** **Site Layout Plan 2499-002-03**

Note:
In Part A of the application form you must give us details of the site's location and provide us with a site plan. We need a detailed site plan (or plans) showing:

- Site location, the area covered by the site condition report, and the location and nature of the activities and/or waste facilities on the site.
- Locations of receptors, sources of emissions/releases, and monitoring points.
- Site drainage.
- Site surfacing.

If this information is not shown on the site plan required by Part A of the application form then you should submit the additional plan or plans with this site condition report.

2.0 Condition of the land at permit issue	
Environmental setting including: • geology	**No artificial ground is recorded as present at the site based on information from the British Geological Survey (BGS).** **The bedrock geology comprises Gault Formation - Mudstone. Sedimentary bedrock formed between 113 and 100.5 million years ago during the Cretaceous period.** **Based on the nearest available borehole log in the general vicinity of the site (TQ75NW71), the ground comprises Topsoil to 1.0ftbgl, underlain by Sandy loam and stones to 12.0ftbgl, this is underlain by ballast, brown sand and green sand to 24.0ftbl at which the borehole was completed.**

• hydrogeology • surface waters	**The bedrock is designated as an Unproductive aquifer.** **The site is not situated within a groundwater source protection zone or drinking water safeguard zone with respect to groundwater.** **There are no recorded Environmental Permits to discharge to surface or ground water within 250m of the site.** **The nearest surface water is the River Medway which is approximately 620m from the site.** **The information provided by the EA and Gov.UK Flood Mapping indicated that the site lies within a flood zone 1 which has a low probability of flooding from rivers and the sea.**
Pollution history including: • historical land-uses and associated contaminants • pollution incidents that may have affected land	**The review of publicly available mapping Is summarised below:** • **The earliest available mapping (1869) indicates that the site itself was undeveloped with the Brick and Tile works adjacent. The village of Forstal was located to the south with Aylesford to the west.** • **By 1898 the site formed part of the expanded Brick and Tile works. By 1935 the site was a clay pit which formed part of Ayslesford Pottery** • **Over the years the site and surrounded land was developed further with several residential, commercial, and industrial activities present in the immediate area.** • **By 1990 the google earth satellite imagery shows that the industrial estate was present and the site itself comprised industrial/ commercial units** • **In the present day the site and surrounding land continues to be used for industrial & commercial purposes.** **There is no available data with regards to recorded pollution incidents within 250m of the site.** **A site walkover survey was undertaken, and the ground appeared to be intact with no damage to the surface.** **The access arrangements for the site and overall site layout detailing site infrastructure have been detailed on Drawing No 2499-002-03.**

• any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures	**During the site visit there was no evidence of disturbed land, discoloured water/soil or subsidence.** **An olfactory assessment was carried out during the survey. At the time of the assessment there was no visual or olfactory evidence of contamination recorded.** **No liquids were being discharged from the site. All surface water on site will be consistent with the current situation.** **During the time of the survey there was no evidence of ponding at the site. There was no presence of any surface water features.** **The land uses surrounding the site comprised industrial and commercial land uses.** **During the site walkover survey, the site surface was observed to be intact, and no damage was observed. On this basis there is no evidence of damage to pollution prevention measures.**
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	**None available**
Baseline soil and groundwater reference data	**None**
Supporting information	**N/A**

3.0 Permitted activities	
Permitted activities	**Refer to EP**
Non-permitted activities undertaken	**N/A**

Document references for: • plan showing activity layout; and • environmental risk assessment.	**Plans located in Appendix I of EMS (Doc. Ref. 2499-002-B)** **Environmental Risk Assessment (2499-002-E)**

Note:

In Part B of the application form you must tell us about the activities that you will undertake at the site. You must also give us an environmental risk assessment. This risk assessment must be based on our guidance (*Environmental Risk Assessment - EPR H1*) or use an equivalent approach.

It is essential that you identify in your environmental risk assessment all the substances used and produced that could pollute the soil or groundwater if there were an accident, or if measures to protect land fail.

These include substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) regulations and also raw materials, fuels, intermediates, products, wastes and effluents.

If your submitted environmental risk assessment does not adequately address the risks to soil and groundwater we may need to request further information from you or even refuse your permit application.

4.0 Changes to the activity	
Have there been any changes to the activity boundary?	If yes, provide a plan showing the changes to the activity boundary.
Have there been any changes to the permitted activities?	If yes, provide a description of the changes to the permitted activities
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	If yes, list of them
Checklist of supporting information	• Plan showing any changes to the boundary (where relevant) • Description of the changes to the permitted activities (where relevant) • List of 'dangerous substances' used/produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant)

5.0 Measures taken to protect land	
Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you can't, you need to collect land and/or groundwater data to assess whether the land has deteriorated.	
Checklist of supporting information	• Inspection records and summary of findings of inspections for all pollution prevention measures • Records of maintenance, repair and replacement of pollution prevention measures

6.0 Pollution incidents that may have had an impact on land, and their remediation	
Summarise any pollution incidents that may have damaged the land. Describe how you investigated and remedied each one. If you can't, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.	
Checklist of supporting information	• Records of pollution incidents that may have impacted on land • Records of their investigation and remediation

7.0 Soil gas and water quality monitoring (where undertaken)	
Provide details of any soil gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.	
Checklist of supporting information	• **Description of soil gas and/or water monitoring undertaken** • **Monitoring results (including graphs)**

8.0 Decommissioning and removal of pollution risk

Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this.

Checklist of supporting information	• **Site closure plan** • **List of potential sources of pollution risk** • **Investigation and remediation reports (where relevant)**

9.0 Reference data and remediation (where relevant)

Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from sections 3, 4, 5 and 6 of the Surrender Site Condition Report shows that the land has not deteriorated.

If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender.

Checklist of supporting information	• Land and/or groundwater data collected at application (if collected) • Land and/or groundwater data collected at surrender (where needed) • Assessment of satisfactory state • Remediation and verification reports (where undertaken)

10.0 Statement of site condition

Using the information from sections 3 to 7, give a statement about the condition of the land at the site. This should confirm that:

- the permitted activities have stopped
- decommissioning is complete, and the pollution risk has been removed
- the land is in a satisfactory condition.

Permit Application Supporting Document

Appendix IX

Emissions Modelling Assessment

EMISSIONS MODELLING ASSESSMENT

Waste Treatment and Packaging Facility, St Michaels Close. Aylesford

Elliot Environmental Drainage Ltd

Version:	1.2	**Date:**	08/08/2024		
Doc. Ref:	2499-002-I	**Author(s):**	DY	**Checked:**	
Client No:	2499	**Job No:**	002		

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1.1	06/08/2024	DY		Amendment to Appendix I
1.2	08/08/2024	DY		Amendment to Section 5

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1 Introduction

1.1 Background and Context of Assessment

1.1.1 An emissions modelling assessment has been undertaken in support of an Environmental Permit (EP) Application being submitted for a waste treatment and packaging facility being installed at St Michaels Close, Aylesford, Kent. The assessment has been undertaken to predict the potential air quality impacts at sensitive receptor locations as a result of residual emissions from the plant.

1.2 Site Location

1.2.1 Reference should be made to Appendix I for a site location plan. The site is located on land within an established industrial estate. The approximate National Grid Reference for the site is 574503, 159085.

1.3 Proposed Activities and Environmental Context

1.3.1 The proposals are for the installation of a specialist waste treatment and packaging facility. The facility will accept and manage hazardous and non-hazardous wastes, predominantly including liquid based wastes and sludges which will be subject to various physical and physico-chemical treatment processes.

1.3.2 An EP is required for the operation under the Environmental Permitting (England and Wales) Regulations 2016 (“the regulations”).

1.3.3 The operation of the processes will have the potential to create airborne emissions and subsequent impacts upon the surrounding environment. Potential long and short-term air quality impacts associated with point source emissions from the process have been quantified within this report through prediction of resulting ground level pollutant concentrations which have been compared to the relevant Air Quality Limit Values (AQLVs) and Environmental Assessment Levels (EALs).

2 Air Quality Standards

2.1 Air Quality Limit Values

2.1.1 Table 2.1 contains the AQLVs which are relevant to this assessment. These have been obtained from the Air Quality Standards Regulations 2010 (as amended) and government permitting risk assessment guidance website.

Table 2.1 - Air Quality Limit Values

Pollutant	Measured As	Purpose	Air Quality Limit Values
Benzene	Annual mean	Protection of human health	5μg.m^{-3}

2.2 Environmental Assessment Levels

2.2.1 A list of short-term EALs relevant to this assessment are presented in the table below. These have been obtained from the government permitting risk assessment guidance website[1].

Table 2.2 - Environmental Assessment Levels

Substance	Environmental Assessment Levels	
	24-Hour Mean (μg.m^{-3})	1-Hour Mean (μg.m^{-3})
Benzene	30	-
Hydrogen Chloride (HCL)	-	750

[1] https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit

3 Baseline Position

3.1 Air Quality Across Maidstone Borough

3.1.1 Maidstone Borough Council (MBC) are required to undertake a review and assessment of air quality within their area of jurisdiction under Section 82 part IV of the Environment Act (1995). Local Authorities (LAs) are obligated to prepare an Annual Status Report (ASR) each year. For areas where AQLVs are not expected to be achieved, the LA will undertake further assessment. Subsequently, if AQLVs are not predicted to be met following detailed assessment, the LA must declare an Air Quality Management Area (AQMA).

3.1.2 There is currently one AQMA declared in the MBC area of jurisdiction. However, this is not declared for any of the pollutants relevant to this assessment and has therefore not been considered further.

3.2 Air Quality Monitoring Data

3.2.1 Non-Automatic Hydrocarbon Network

3.2.1.1 The Non-Automatic Hydrocarbon Network measures ambient benzene concentrations at various sites around the United Kingdom. The closest monitoring station to the proposed site is Chatham Roadside. This is an urban traffic monitoring site located approximately 8.5km to the North-North-East of the proposed site location. Given the nature and location of this monitoring location, it is considered that it would provide a precautionary estimation of potential background benzene concentrations at the proposed site and surrounding receptor locations. Data from the most recent years of fully available data is presented in the table below. The data was calculated from data downloaded from the DEFRA website.

3.2.1.2 It should be noted that monitoring periods are periodic (approximately two weekly collection) and in each case, include collection periods which span the tail end of one year and the first part of the following year. Therefore, it was not possible to calculate annual means as an absolute annual mean value for each calendar year. However, the annual mean concentrations are based on data collection rate considerably in excess of 75% for each year

and is therefore considered to be valid for use as annual mean background pollution data for benzene.

Table 3.1 - Reported Annual Mean Benzene Concentrations at Chatham Roadside

Site	Site Type	Site NGR	Reported Annual Mean Benzene Concentrations (µg.m^{-3})							
			2015	2016	2017	2018	2019	2020	2021	2022
Chatham Roadside	Urban Traffic	577437, 166993	0.79	0.78	0.76	0.61	0.63	0.54	0.57	0.55

3.2.2 Acid Gas Monitoring

3.2.2.1 The UK Acid Gases and Aerosols Monitoring Network is maintained in the UK by DEFRA and has been in operation since 1999. The network includes several sites around the UK in rural monitoring locations and includes monitoring data for HCL. No HCL data is available since 2016 for any site within this monitoring network. The tables below confirm the maximum monitored annual mean HCL concentrations across all sites between 2011 and 2015, which has been calculated from available data on the DEFRA website. This has been used as a source of background data in lieu of other available recent data.

Table 3.2 – Maximum Monitored Annual Mean HCL Concentrations Between 2011 and 2015

Site	Maximum Monitored Annual Mean HCL Concentration (µg.m^{-3})				
	2011	2012	2013	2014	2015
All Sites within UK Acid Gases and Aerosols Monitoring Network	0.636	0.432	0.515	0.471	0.756

3.3 Background Pollutant Mapping

3.3.1 The DEFRA website contains background pollutant mapping data for benzene on a 1km by 1km grid square basis across the UK. This data is routinely used for assessing background pollutant concentrations where no suitably representative air pollution monitoring data exists. The archive is maintained by AEA on behalf of DEFRA. Background mapping of benzene is only available for 2001. Future year predictions of benzene have been calculated

using the appropriate year adjustment factors contained on the DEFRA website. The table below contains background pollutant concentrations for the grid square containing the site.

Table 3.3 - Background Pollutant Mapping Data for Site

Pollutant	2024 Annual Mean Concentration (µg.m^{-3}) within Grid Square Containing Site (574500, 159500)
Benzene	0.44

3.4 Summary of Background Data Used in Assessment

3.4.1 The table below summarises the background data used within this assessment. In order to provide a precautionary estimate of background benzene concentrations, data from the Chatham Roadside AURN site has been used, since these concentrations are higher than the mapped background data.

Table 3.4 - Summary of Background Data Used in Assessment

Pollutant	Annual Mean (µg.m^{-3})	24-Hour Mean (µg.m^{-3})[(a)]	1-Hour Mean (µg.m^{-3})[(b)]	Source of Background Data
Benzene	0.79	0.932	N/A	Highest monitored concentration from five years of available data at Chatham Roadside AURN site
HCL	0.756	N/A	1.512	Highest calculated concentration from five years of data at all sites within UK Acid Gas and Aerosol Monitoring Network

N.B (a) 24-hour mean background concentration provided by multiplying 1-hour mean concentration by factor of 0.59 in accordance with the relevant guidance
(b) 1-hour mean background concentration assumed to be twice the annual mean background concentration in accordance with the relevant guidance

3.5 Sensitive Receptors

3.5.1 LAQM.TG(22) states than annual mean pollutant objectives are relevant at residential properties, schools, hospitals and care homes etc, that 24-hour mean pollutant objectives are relevant at all locations where the annual mean objectives apply together with hotels and gardens of residential properties and finally that 1-hour mean objectives are relevant at any location where public might reasonably expect to spend one hour or longer. The

table below outlines the nearest receptors to the proposed plant, representative of relevant worst case exposure locations for annual mean and 24-hour mean pollutant concentrations. Reference should be made to Appendix II for a graphical representation of receptor locations. In order to provide a highly conservative assessment of worst case potential impacts on 1-hour mean Air Quality Standards, the maximum point of impact surrounding the plant has been used.

Table 3.5 - Sensitive Receptors

Receptor Identifier	Receptor Description	National Grid Reference (m)	
		X	Y
R1	Residential property on Pratling Street	574051.3	159315.7
R2	Residential property on Pratling Street	574096.7	159329.6
R3	Residential property on Pratling Street	574128.2	159335.8
R4	Residential property on Pratling Street	574164.7	159358.3
R5	Residential property on Pratling Street	574200.1	159381.5
R6	Residential property on Pratling Street	574268	159392.6
R7	Residential property on Pratling Street	574314.5	159430.4
R8	The Oast House	574625	159594.3
R9	Residential property on Grey Wethers	575231.6	159595.4
R10	Residential property on Tolgate Way	575229.8	159565.5
R11	Residential property on Tolgate Way	575237.9	159506.9
R12	Residential property on Tolgate Way	575229.9	159439.7
R13	Residential property on Tolgate Way	575229.3	159421.2
R14	Residential property on Chatham Road	575291.7	159223.8
R15	Residential property on Chatham Road	575315.8	159147.6
R16	Residential property on Chatham Road	575333.1	159032.3
R17	Residential property on Chatham Road	575393.5	158933.3
R18	Residential property on Chatham Road	575389.6	158870.4
R19	Cobtree Manor	574711.5	158687.1

Receptor Identifier	Receptor Description	National Grid Reference (m)	
		X	Y
R20	Residential property off Forstal Road	573957	158818.2
R21	Residental property off Rochester Road	573286.2	159052.2
R22	Residental property off Rochester Road	573319.7	159098.9
R23	Residental property off Rochester Road	573381.7	159155.6
R24	Residental property off Rochester Road	573511.5	159331.6

4 Modelling Methodology

4.1 Model Description

4.1.1 The potential air quality impacts associated with residual emissions arising from the process have been quantified using AERMOD, which is a steady state, next generation, dispersion model. AERMOD was developed jointly by the American Meteorological Society (AMS) and the United States (US) Environmental Protection Agency (EPA) Regulatory Model Improvement Committee. AERMOD is a development from the Industrial Source Complex (ISC) 3 dispersion model and incorporates improved dispersion algorithms and pre-processors to integrate the impact of meteorology and topography within the modelling output, and is approved for use in the UK by the EA. The version of AERMOD that has been used for this current assessment is Lakes Environmental ISC-AERMOD View Version 12.0.0. The model has been run using the most recent version of the AERMOD executable file, 23132. In order to improve model run times, Lakes Environmental have produced an equivalent source code to 23132, known as AERMOD parallel which enables the model to be run over multiple processors. The model was run using Lakes Environmental AERMOD MPI 23132.

4.2 Model Inputs

4.2.1 Emission Source Process Parameters

4.2.1.1 Reference should be made to Appendix I for a graphical representation of the site layout and flue location. The table below contains expected process parameters for the emission point which is based on information provided by the technology provider. The emissions point modelled is the stack which will serve the odour abatement system.

Table 4.1 - Expected Emission Source Process Parameters

Process Parameter	Value
Stack (Emission Point A1) NGR	574536.78, 159098.18
Stack internal diameter (m)	0.9
Stack height (m)	12.954

Process Parameter	Value
Expected Exhaust efflux velocity ($m.s^{-1}$)	10.862
Expected Exhaust volumetric flowrate ($m^3.s^{-1}$)	6.91
Expected stack efflux temperature	Ambient release
Expected stack pressure (kPa)	101.3

4.2.2 Pollutant Emissions

4.2.2.1 The site will be subject to emission limits contained within Commission Implementing Decision (EU) 2018/1147[2], which contains BAT conclusions for waste treatment installations. For processes including the treatment of water based liquid wastes, this document contains BAT based emission limits for HCL and Volatile Organic Compounds (VOCs) where these are identified as relevant within the waste gas stream based on specific inventory.

4.2.2.2 In order to provide a precautionary assessment of potential impacts, emission rates have been based on BAT based limits. These are summarised in the table below, with equivalent emission rates presented based on the process parameters identified above. The limits are based on reference conditions of 273.15K, 101.3kPa and after correction for moisture. No data was provided for expected exhaust gas moisture in the exhaust gas from the abatement system. Therefore, no normalisation of flow rates was undertaken before calculating emission rates. The normalisation of flow rate for moisture would result in a lower flow rate and hence lower emission rate for use in the model. As such, this provides a precautionary assessment.

[2] COMMISSION IMPLEMENTING DECISION (EU) 2018/1147 Of 10 August 2018 Establishing Best Available Techniques (BAT) Conclusions For Waste Treatment, Under Directive 2010/75/EU Of The European Parliament And Of The Council.

Table 4.2 – Pollutant Emission Rates Assigned in Model (Emission Point A1)

Pollutant	BAT Based Emission Limits (Normalised to 273.15K, 101.3KPa, dry gas, ($mg.Nm^{-3}$)	Pollutant Emission Rates ($g.s^{-1}$)
HCL	1-5	0.0346
Total Volatile Organic Carbon (TVOC)	3-20	0.138

4.2.2.3 There are no ambient air quality guideline values for TVOC. In accordance with the relevant guidance, it has been assumed that TVOC emissions consist entirely of benzene. This presents a worst case assessment since it is highly unlikely that TVOC emissions would consist entirely of benzene.

4.2.3 Building Downwash

4.2.3.1 Significant on-site buildings and structures and relevant adjacent structures were digitised within the model based on site layout and elevation information provided by the site operator and a detailed drone survey of the site. In accordance with government guidance, significant structures within a distance of 5L of the emission sources have been included, where L is defined as the lesser of the maximum projected building width and height. As the closest buildings to the emission point, these would be expected to have an influence on pollutant dispersion. The table below contains information on buildings/structures included within the model. Reference should be made to Appendix I for a plan showing building/structure locations and orientation. The integrated Building Profile Input Programme (BPIP) module within AERMOD was used to assess the potential impact of building downwash upon predicted dispersion characteristics. Building downwash occurs when turbulence, induced by nearby structures, causes pollutants emitted from an elevated source to be displaced and dispersed rapidly towards the ground, resulting in elevated ground level concentrations. All buildings and structures were input into the BPIP processor.

Table 4.3 - Building Inputs

Structure	Length and Width (m)	Diameter (m) of Circular Structures	Max Height (m)
Structure A	25.72 x 21.01	-	9.954
Structure B	21.12 x 10.76	-	8.00
Structure C	18.49 x 6.20	-	4.55
Structure D	-	4.2	9.74
Structure E	-	4.2	9.74
Structure F	-	4.2	9.74
Structure G	20.4 x 25.4		9.6
Structure H	20.4 x 25.4		9.6

4.2.4 Meteorological Data

4.2.4.1 There are no official met stations in close proximity to the site. The closest are Biggin Hill, located approximately 33km to the North-West of the site and at an elevation of 182m and Southend, located approximately 33km to the North-East at an elevation of 15m. Biggin Hill is located at a significantly higher elevation than the site and Southend is located in a coastal location. As such, it was not considered that these sites would provide suitably representative data for use in this assessment.

4.2.4.2 Given the above, Numerical Weather Prediction (NWP) data at a resolution of approximately 4km was used in the assessment, specific to the site location. NWP has advantages over the use of data from met stations for the following reasons:

- NWP data generally has less gaps, which would otherwise have to be filled in traditional observational data;
- Calm periods in observational records may be overrepresented since the instrumentation may not record wind speeds below 0.5m/s;

- Observing stations may have local variation from the wider area, for example due to local topology characteristics and therefore may not necessarily be broadly representative of the site being modelled; and,
- The observing station is likely to be at a different elevation to the site being modelled.

4.2.4.3 NWP data for the site was provided by ADM Ltd, ready processed to be site specific for the proposed site. The following outlines the parameters assigned for Surface Roughness, Albedo and Bowen Ratio used for processing the met data.

Table 4.4 - Parameters for Surface Roughness, Albedo and Bowen Ratio

Parameter	Directional Sector	Value
Surface Roughness	All	0.5
Albedo	All	0.2465
Bowen Ratio	All	0.980

4.2.5 Assessment Area

4.2.5.1 Two uniform cartesian receptors grid were used to define the modelling domain. This included a high resolution grid, extended over a 2010m by 2010m area with a spacing of 15m in X and Y direction, centred over the emission source location. An additional uniform Cartesian receptor grid was extended over a 20,000m by 20,000m area with a grid spacing of 200m in X and Y direction, centred over the emission source location. This ensured the maximum point of impact could be captured. In addition, the discrete receptors identified previously were included within the model as cartesian receptors. All receptor heights were set to 1.5m, representative of average breathing height.

4.2.6 Terrain Data

4.2.6.1 Topographical features can have a significant impact on pollutant dispersion. Given that the gradient of the land between the site and receptors exceeds a gradient of 10% in places,

terrain data was included in the model, in accordance with the relevant guidance[3]. The terrain data used was Ordnance Survey Terrain 5 data, which is 1:10,000 scale data, contoured at 5m vertical intervals. The digital terrain data was processed in AERMAP, the inbuilt terrain processor within AERMOD. This then applied elevation data to all sources, buildings and receptors within the modelling domain. The proposed site is part of a larger parcel of land that was previously granted planning permission for industrial development, including a number of industrial buildings. The land is currently being relevelled as part of the development of the sites. As such, the OS data for the site and parcel of land to the East and North-East does not accurately reflect existing and proposed site levels. The OS terrain data was therefore adjusted to take account of the existing and proposed ground levels, using information obtained from plans approved under planning.

4.2.7 Model Scenarios

4.2.7.1 The scenarios modelled are contained within Table 4.5. It was assumed that the plant will be operational for 24 hours per day, 365 days per year, therefore providing a worst case scenario.

Table 4.5 – Model Scenarios

Pollutant	Modelled Scenarios
TVOC (as benzene)	Maximum 24-hour mean concentration across five years of met data
HCL	Maximum 1-hour mean concentration across five years of met data

[3] LAQM.TG(16), DEFRA, 2016.

4.3 Assessment of Potential Impacts

4.3.1 Methodology for Assessment of Potential Impacts at Human Receptors

4.3.1.1 In order to assess potential impacts, reference has been made to the permitting air emissions risk assessment guidance on the government website.[4]

4.3.1.2 The government guidance indicates that potential impacts from a process can be considered insignificant if the following screening criteria are met:

- The long term process contribution (PC) is <1% of the long term environmental standard; and/or,
- The short term PC is <10% of the short term environmental standard.

4.3.1.3 The guidance also indicates that more detailed assessment of emissions (modelling) for a process may be required if the following criteria are met:

- The long term PC + background concentration is >70% of the long term environmental standard; and/or
- The short term process contribution is >20% (Short term environmental standard minus twice annual mean background concentration).

4.3.1.4 If any of the criteria above are met for both short and long term modelled concentrations, it can be concluded that potential impacts will be acceptable and no requirement for further assessment, in accordance with the relevant guidance. If the above criteria are exceeded, the Predicted Environmental Concentration (PEC) is then compared to the relevant environmental standard. If the modelling shows that the relevant standard will be met at receptor locations confidence will be high that a breach of the standard will be unlikely,

[4] https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit.

especially given the conservative assumptions which have been used throughout the assessment.

4.4 Model Verification and Uncertainty

4.4.1 It was not possible to verify model results as the plant is not yet operational.

4.4.2 There can be a significant degree in uncertainty in predications made by any atmospheric dispersion model, which needs to be considered when assessing results. Such uncertainty can arise as a result of model limitations, uncertainty in input data, including emissions estimates, meteorological data used and background pollutant concentrations used in the assessment.

4.4.3 AERMOD is a commonly used model produced by the US EPA and is approved for use in the UK by the EA. The model is well validated and the US EPA present the results of the model validation exercises undertaken on their website. These verify the output of the model in comparison to observed data for a number of scenarios, to ensure predictions are as accurate as possible. The model input code is periodically updated by the US EPA to resolve bugs and errors and to improve the output to take account of latest knowledge. The latest AERMOD model executable file has been used to run the model for the purpose of this assessment.

4.4.4 In addition to the choice of model, the following methods used in the assessment ensures that confidence can be high that potential impacts have not been underestimated:

- Worst case modelled concentrations across 5 years of meteorological data used in assessment;
- Assumption that the process will emit continuously at maximum permitted levels and be operational for 100% of each year;
- Where possible, estimation of existing background pollutant concentrations has been highly conservative and precautionary;
- Worst case assumption that TVOC emissions consist entirely of benzene; and,
- Worst case assumptions made for receptor locations.

5 Model Results

5.1 Maximum Modelled Pollutant Concentrations

5.1.1 The tables below contain the maximum modelled pollutant concentrations at sensitive receptor concentrations, with comparison to the relevant AQLVs and EALs. Maximum modelled concentrations from the five years of sequential data have been used to undertake assessment of potential impacts.

Table 5.1 – Modelled Annual Mean Benzene Concentrations at Receptor Locations

Receptor	Modelled PC to Annual Mean Ground Level Benzene Concentrations for Each Year of Meteorological Data (µg.m^{-3})					Maximum PC to AQLV (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to AQLV (%)
	2019	2020	2021	2022	2023			
R1	0.17998	0.13813	0.14505	0.1881	0.14673	3.76	0.98	19.56
R2	0.20484	0.15225	0.15978	0.21488	0.16613	4.30	1.00	20.10
R3	0.22428	0.16305	0.17189	0.23601	0.18223	4.72	1.03	20.52
R4	0.24082	0.16852	0.18263	0.25741	0.19729	5.15	1.05	20.95
R5	0.25416	0.17329	0.19343	0.27822	0.20969	5.56	1.07	21.36
R6	0.29878	0.20561	0.23716	0.33362	0.24675	6.67	1.12	22.47
R7	0.30753	0.22253	0.26748	0.34987	0.25389	7.00	1.14	22.80
R8	0.28936	0.29983	0.26419	0.28297	0.25868	6.00	1.09	21.80
R9	0.13815	0.11683	0.13256	0.12604	0.13258	2.76	0.93	18.56
R10	0.14316	0.12206	0.13772	0.12898	0.13785	2.86	0.93	18.66
R11	0.15089	0.13358	0.14672	0.13265	0.14735	3.02	0.94	18.82
R12	0.15264	0.14698	0.15425	0.13199	0.15779	3.16	0.95	18.96
R13	0.15249	0.1509	0.156	0.1319	0.16033	3.21	0.95	19.01
R14	0.12104	0.14118	0.13281	0.12413	0.14204	2.84	0.93	18.64
R15	0.10817	0.13687	0.12094	0.11424	0.12823	2.74	0.93	18.54
R16	0.1054	0.13703	0.10925	0.10632	0.11287	2.74	0.93	18.54
R17	0.09318	0.10804	0.08822	0.08835	0.09083	2.16	0.90	17.96
R18	0.09174	0.09571	0.08327	0.08434	0.08624	1.91	0.89	17.71
R19	0.24675	0.1728	0.2483	0.19928	0.17074	4.97	1.04	20.77

Receptor	Modelled PC to Annual Mean Ground Level Benzene Concentrations for Each Year of Meteorological Data (µg.m^{-3})					Maximum PC to AQLV (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to AQLV (%)
	2019	2020	2021	2022	2023			
R20	0.13788	0.13966	0.14768	0.14257	0.12242	2.95	0.94	18.75
R21	0.04274	0.03561	0.03512	0.03911	0.03591	0.85	0.83	16.65
R22	0.04435	0.03696	0.03667	0.04098	0.03756	0.89	0.83	16.69
R23	0.04744	0.03956	0.03975	0.04457	0.04063	0.95	0.84	16.75
R24	0.05418	0.04484	0.04755	0.05477	0.04719	1.10	0.84	16.90

Table 5.2 – Maximum Modelled 24-Hour Mean Benzene Concentrations at Receptor Locations

Receptor	Maximum Modelled PC to 24-Hour Mean Benzene Concentrations (µg.m^{-3})	Maximum PC to EAL (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to EAL (%)
R1	2.42341	8.08	3.36	11.18
R2	2.86471	9.55	3.80	12.66
R3	3.21826	10.73	4.15	13.83
R4	3.79252	12.64	4.72	15.75
R5	4.01872	13.40	4.95	16.50
R6	3.85055	12.84	4.78	15.94
R7	3.61399	12.05	4.55	15.15
R8	4.91534	16.38	5.85	19.49
R9	1.48342	4.94	2.42	8.05
R10	1.54818	5.16	2.48	8.27
R11	1.88917	6.30	2.82	9.40
R12	1.68013	5.60	2.61	8.71
R13	1.91812	6.39	2.85	9.50
R14	2.13797	7.13	3.07	10.23
R15	2.03062	6.77	2.96	9.88
R16	2.09752	6.99	3.03	10.10
R17	1.87877	6.26	2.81	9.37
R18	1.84835	6.16	2.78	9.27
R19	4.10338	13.68	5.04	16.78
R20	2.34925	7.83	3.28	10.94

Receptor	Maximum Modelled PC to 24-Hour Mean Benzene Concentrations ($\mu g.m^{-3}$)	Maximum PC to EAL (%)	Maximum PEC ($\mu g.m^{-3}$)	Contribution of PEC to EAL (%)
R21	0.56229	1.87	1.49	4.98
R22	0.6453	2.15	1.58	5.26
R23	0.76319	2.54	1.70	5.65
R24	1.00039	3.33	1.93	6.44

Table 5.3 – Maximum Modelled 1-Hour Mean HCL Concentrations at Receptor Locations

Receptor	Maximum Modelled PC to 1-Hour Mean HCL Concentrations (µg.m^{-3})	Maximum PC to EAL (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to EAL (%)
R1	3.38499	0.45	4.90	0.65
R2	3.4538	0.46	4.97	0.66
R3	3.68856	0.49	5.20	0.69
R4	4.17121	0.56	5.68	0.76
R5	4.41882	0.59	5.93	0.79
R6	4.9714	0.66	6.48	0.86
R7	5.1297	0.68	6.64	0.89
R8	5.11158	0.68	6.62	0.88
R9	2.20532	0.29	3.72	0.50
R10	2.45402	0.33	3.97	0.53
R11	3.39342	0.45	4.91	0.65
R12	2.85132	0.38	4.36	0.58
R13	3.19906	0.43	4.71	0.63
R14	4.21243	0.56	5.72	0.76
R15	4.86447	0.65	6.38	0.85
R16	4.40311	0.59	5.92	0.79
R17	4.27656	0.57	5.79	0.77
R18	3.93836	0.53	5.45	0.73
R19	7.25091	0.97	8.76	1.17
R20	2.78813	0.37	4.30	0.57

Receptor	Maximum Modelled PC to 1-Hour Mean HCL Concentrations (µg.m^{-3})	Maximum PC to EAL (%)	Maximum PEC (µg.m^{-3})	Contribution of PEC to EAL (%)
R21	1.23226	0.16	2.74	0.37
R22	1.29465	0.17	2.81	0.37
R23	1.35179	0.18	2.86	0.38
R24	1.55999	0.21	3.07	0.41
Maximum Point of Impact	115.6346	15.42	117.15	15.62

5.2 Assessment of Potential Impacts at Human Receptors

5.2.1 Long Term AQLVs

5.2.1.1 The PEC for annual mean benzene concentrations is <70% of the AQLV at all relevant receptor locations. As such, impacts are concluded to be insignificant, in accordance with the relevant guidance.

5.2.2 Short Term EALs

5.2.2.1 Although the modelled PC to the 24-hour mean EAL for benzene exceeds 10% at some receptor locations, the PEC is substantially below the EAL at all relevant receptor locations, the maximum PEC being 19.49% at receptor R8.

5.2.2.2 The modelled PC to the 1-hour mean EAL for HCL is less than 10% at all locations surrounding the plant.

5.2.2.3 Given the above, impacts on short term EALs are concluded to be insignificant.

6 Conclusions

6.1 An assessment of potential air quality impacts has been undertaken for the proposed operation of waste treatment facility to be located at St Michaels Close, Aylesford. Modelling has been undertaken using AERMOD to quantify potential resulting long and short-term pollutant concentrations at surrounding receptor locations as a result of operation of the proposed plant. A series of highly conservative assumptions have been made within the report, resulting in a highly precautionary assessment.

6.2 No significant impacts are predicted on long and short term AQLVs/EALS at any receptor locations and no exceedences of relevant AQLVs and EALs are predicted at any relevant locations of exposure.

6.3 Given the above, the model results have demonstrated that the proposals will not generate any significant adverse impacts on local air quality. Confidence in this prediction is high, given the conservative assumptions made within the assessment.

Appendix I

Site Plans

NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	19.06.24	RS	Initial drawing

KEY:

Permit boundary

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
SITE LOCATION PLAN

CLIENT
Elliott Environmental Drainage Ltd

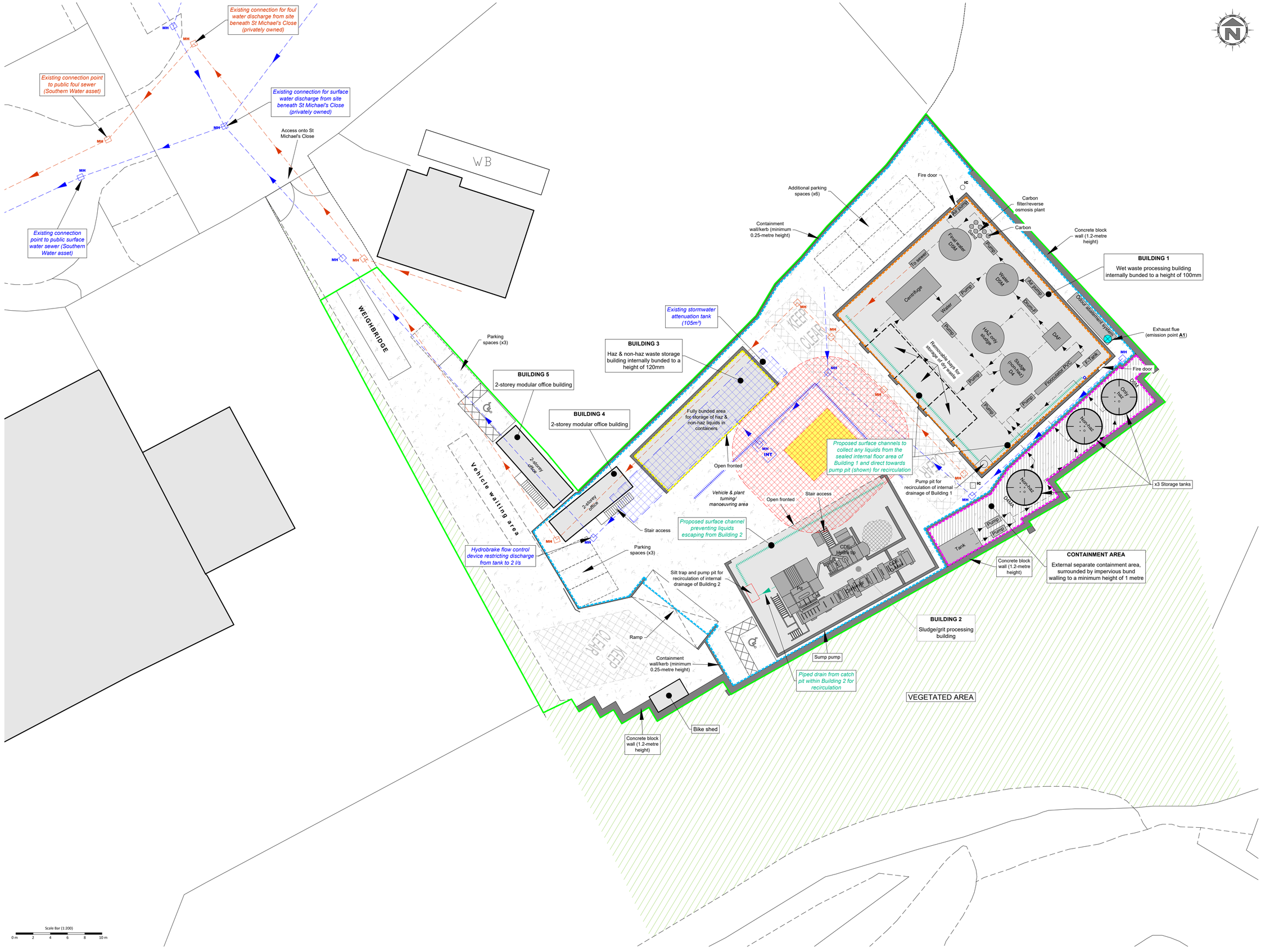
PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A4	CLIENT NO	JOB NO
1:1,250	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-02	-	Issued

DRAWN BY	CHECKED	DATE
RS	RS	19.06.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	08.11.23	RS/IA	Initial drawing
A	07.03.24	JH	Amendment
B	08.03.24	JH	Parking added
C	11.06.24	JH	Working amendment
D	19.06.24	RS	Application submission
E	26.06.24	RS	Quarantine area added

KEY:

- Permit boundary
- Containment Zone A (Building 1)
- Containment Zone B (Building 3)
- Containment Zone C (External tank storage area)
- Containment Zone D (Site-wide tertiary containment)
- INT — Full retention oil interceptor (fitted with penstock valve)
- Piped surface drainage (surface, foul, building)
- Linear surface channels (aco) - (surface, building)
- MH — Manhole (foul, surface)
- IC — Inspection cover (other services)
- Quarantine area (only used in the event of a fire and kept clear at all other times
- 6 metre separation distance around the quarantine area where no other combustible wastes will be stored

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
PERMIT LAYOUT PLAN

CLIENT
Elliott Environmental Drainage Ltd

PROJECT/SITE
St Michael's Close, Aylesford, Kent

SCALE @ A1	CLIENT NO	JOB NO
1:200	2499	002

DRAWING NUMBER	REV	STATUS
2499-002-03	E	Issued

DRAWN BY	CHECKED	DATE
RS	RS	26.06.24

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
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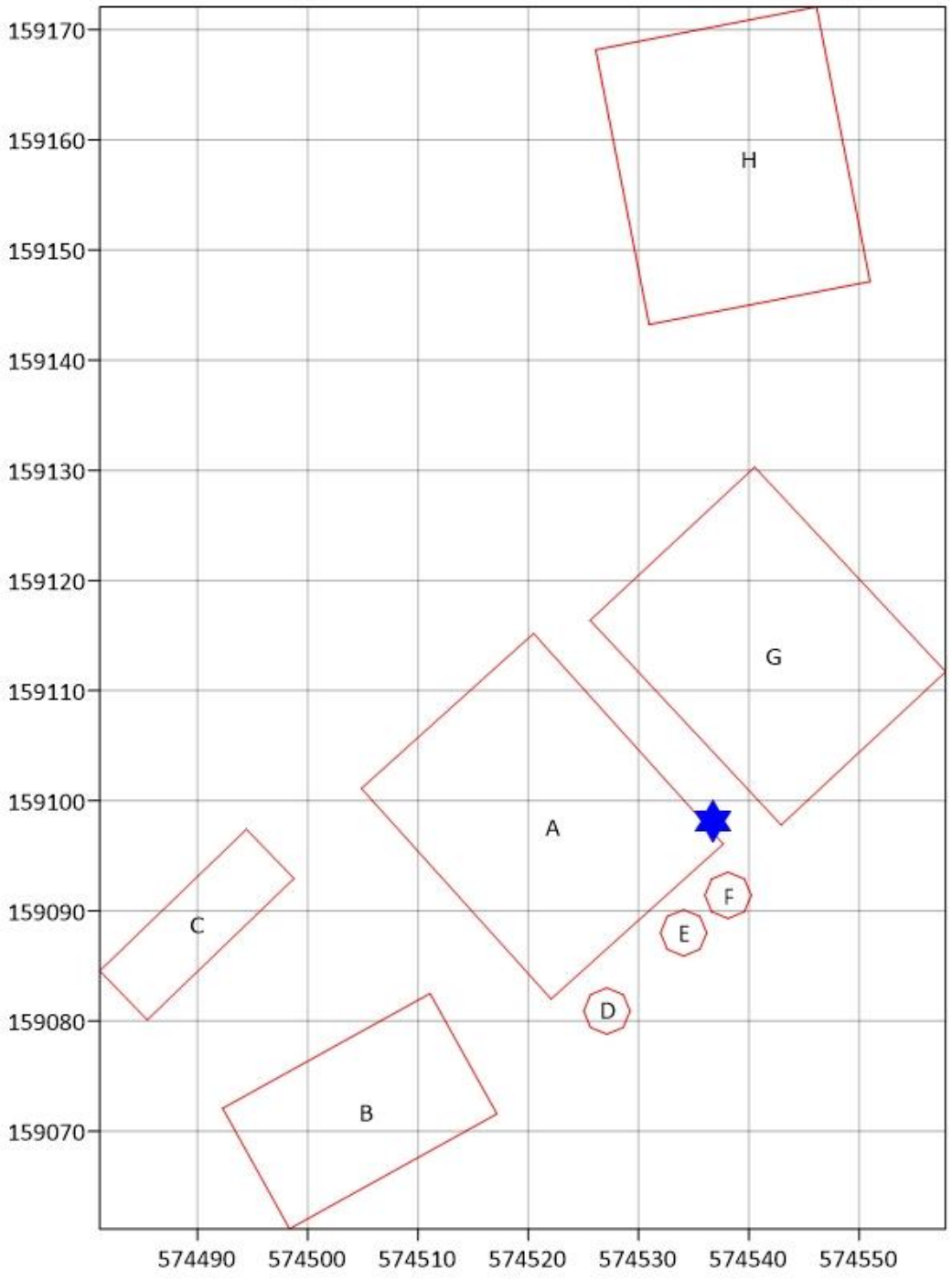

Appendix I - Buildings and Stacks Digitised Within Model

Stack Location

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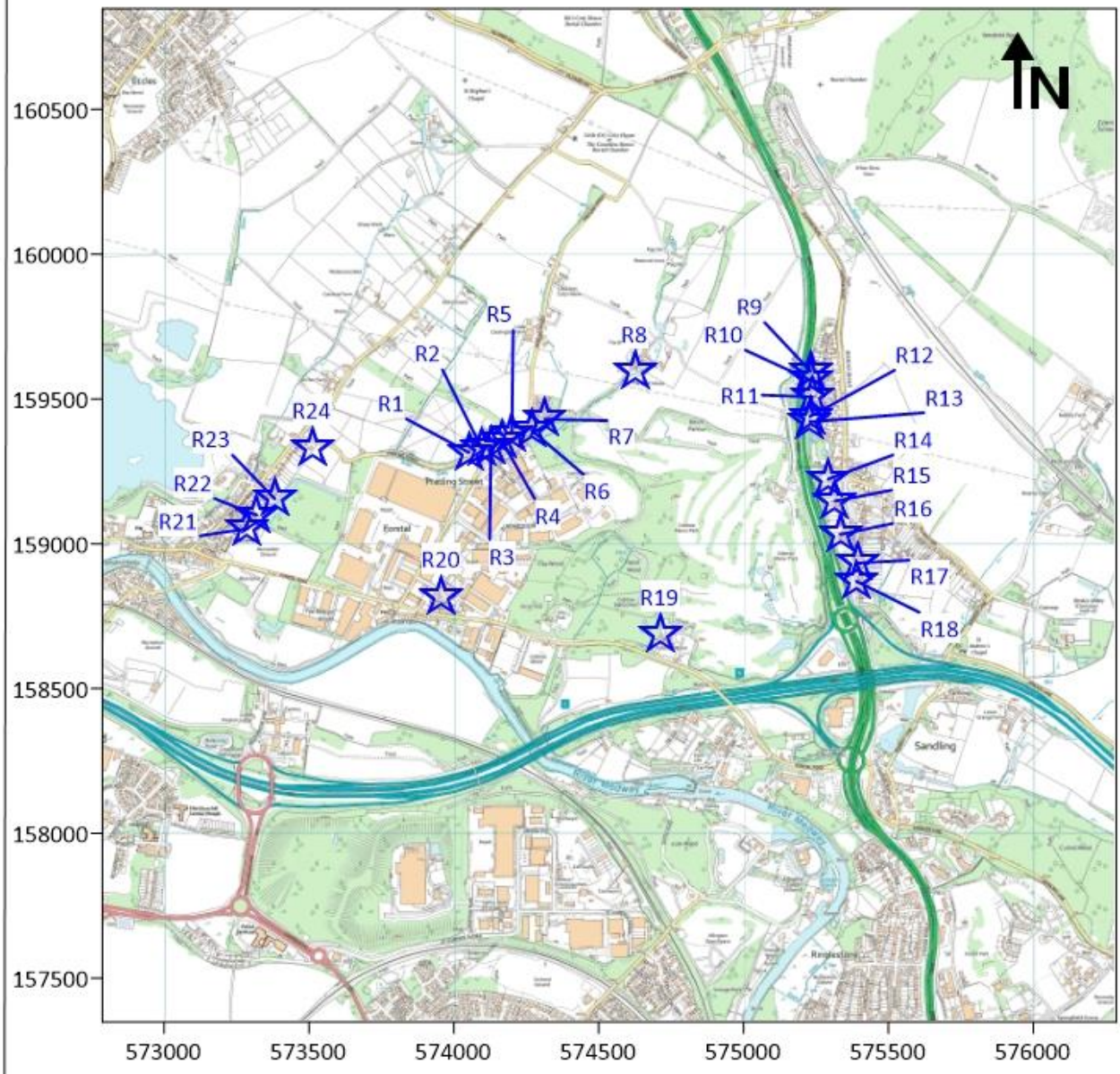
2 Road Two
Winsford
Cheshire
CW7 3QZ

Appendix II

Sensitive Receptor Locations



Appendix II Figure 1 - Sensitive Receptors

☆ Receptor Location

R1 Receptor Identifier

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Lime House
2 Road Two
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Cheshire
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Appendix III

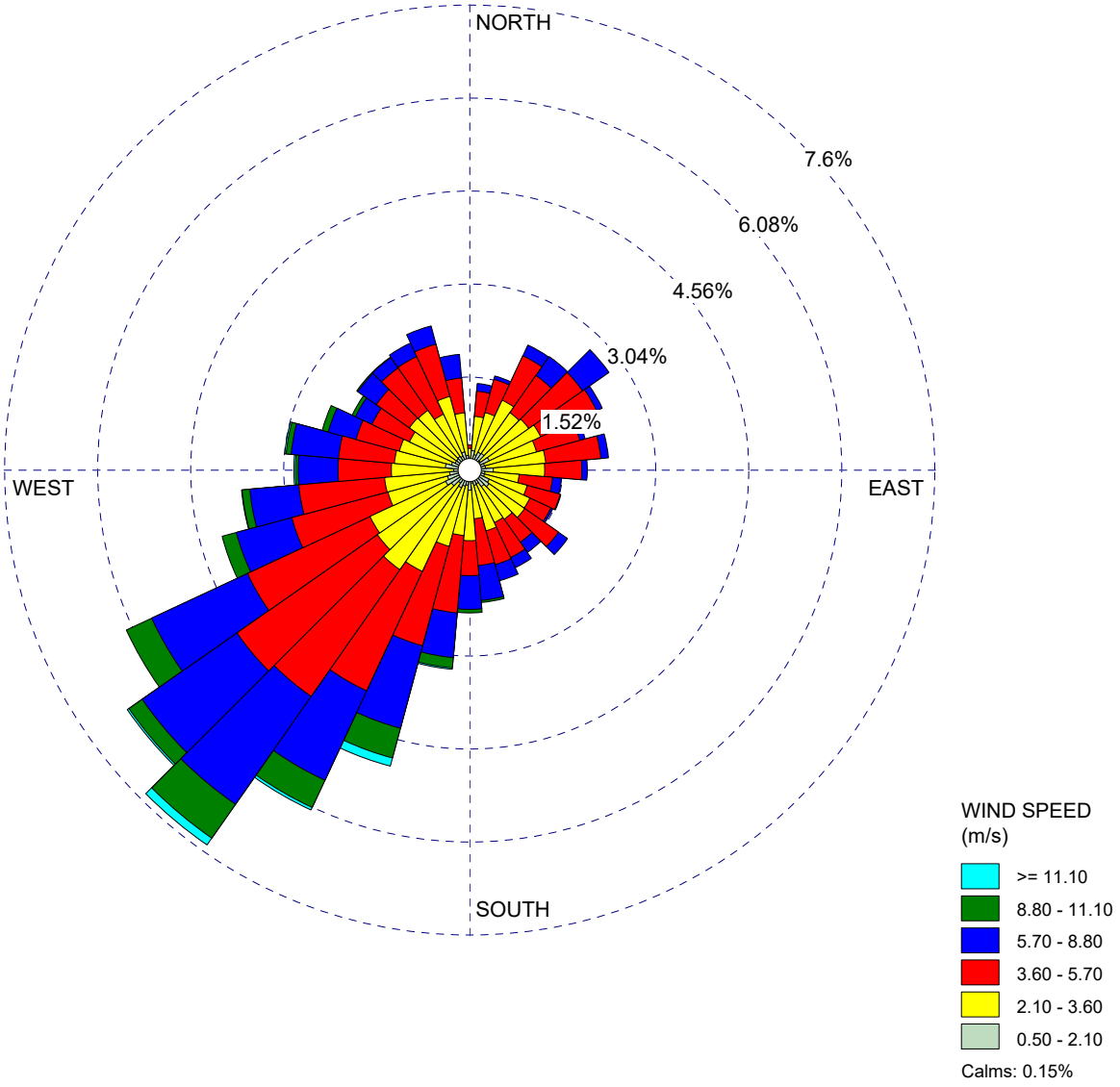
Wind Roses

WIND ROSE PLOT:

NWP Wind Speed and Direction Frequency - 2019

DISPLAY:

Wind Speed
Direction (blowing from)



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		MODELER:	
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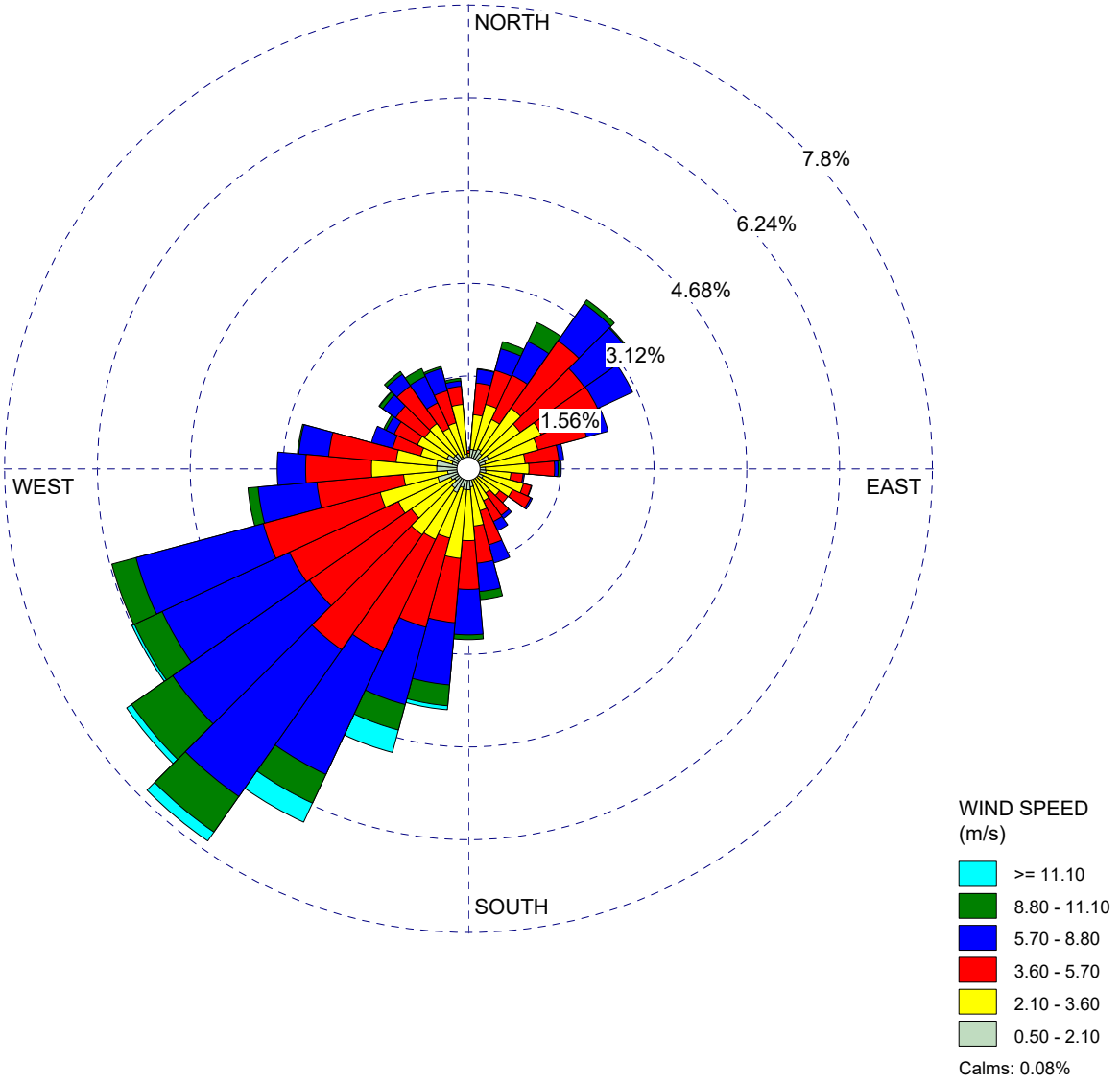
	AVG. WIND SPEED: **4.08 m/s**	DATE: **15/03/2024**	PROJECT NO.: **2499**

WIND ROSE PLOT:

NWP Wind Speed and Direction Frequency - 2020

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 01/01/2020 - 00:00** **End Date: 31/12/2020 - 23:59**	COMPANY NAME:	
		MODELER:	
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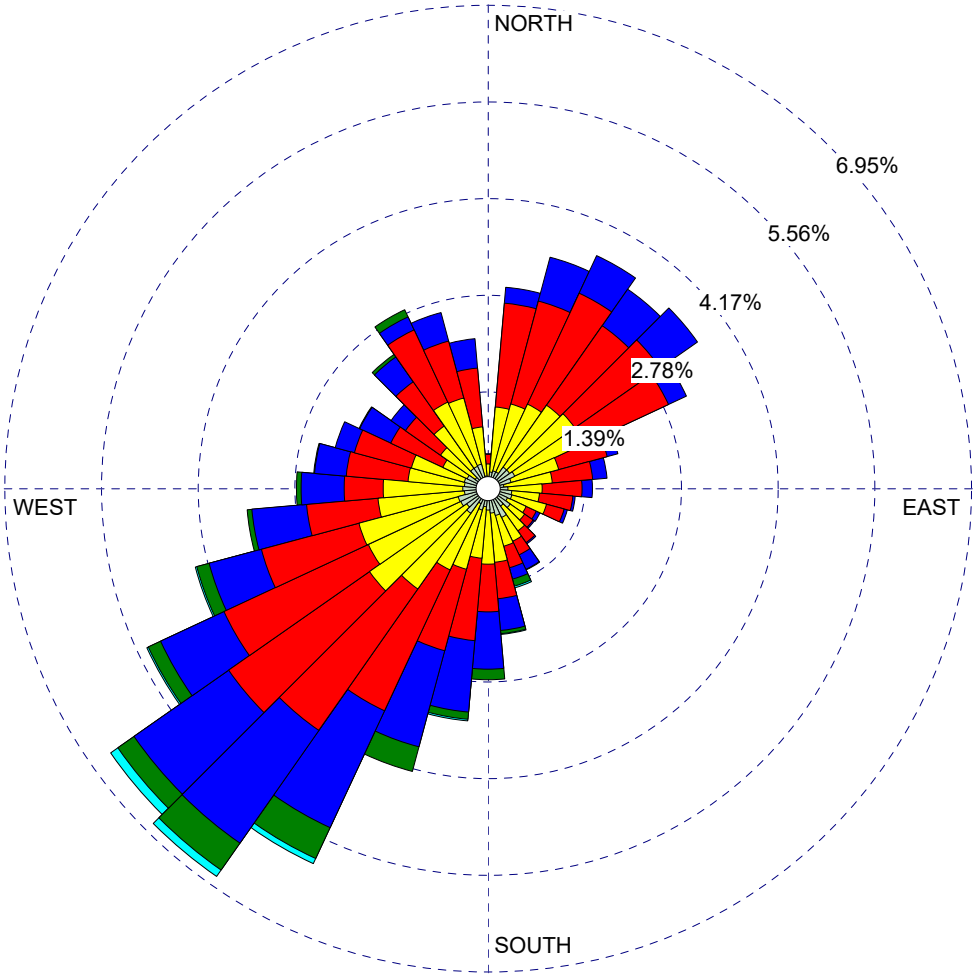
	AVG. WIND SPEED: **4.50 m/s**	DATE: **15/03/2024**	PROJECT NO.: **2499**

WIND ROSE PLOT:

NWP Wind Speed and Direction Frequency - 2021

DISPLAY:

Wind Speed
Direction (blowing from)



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 0.06%

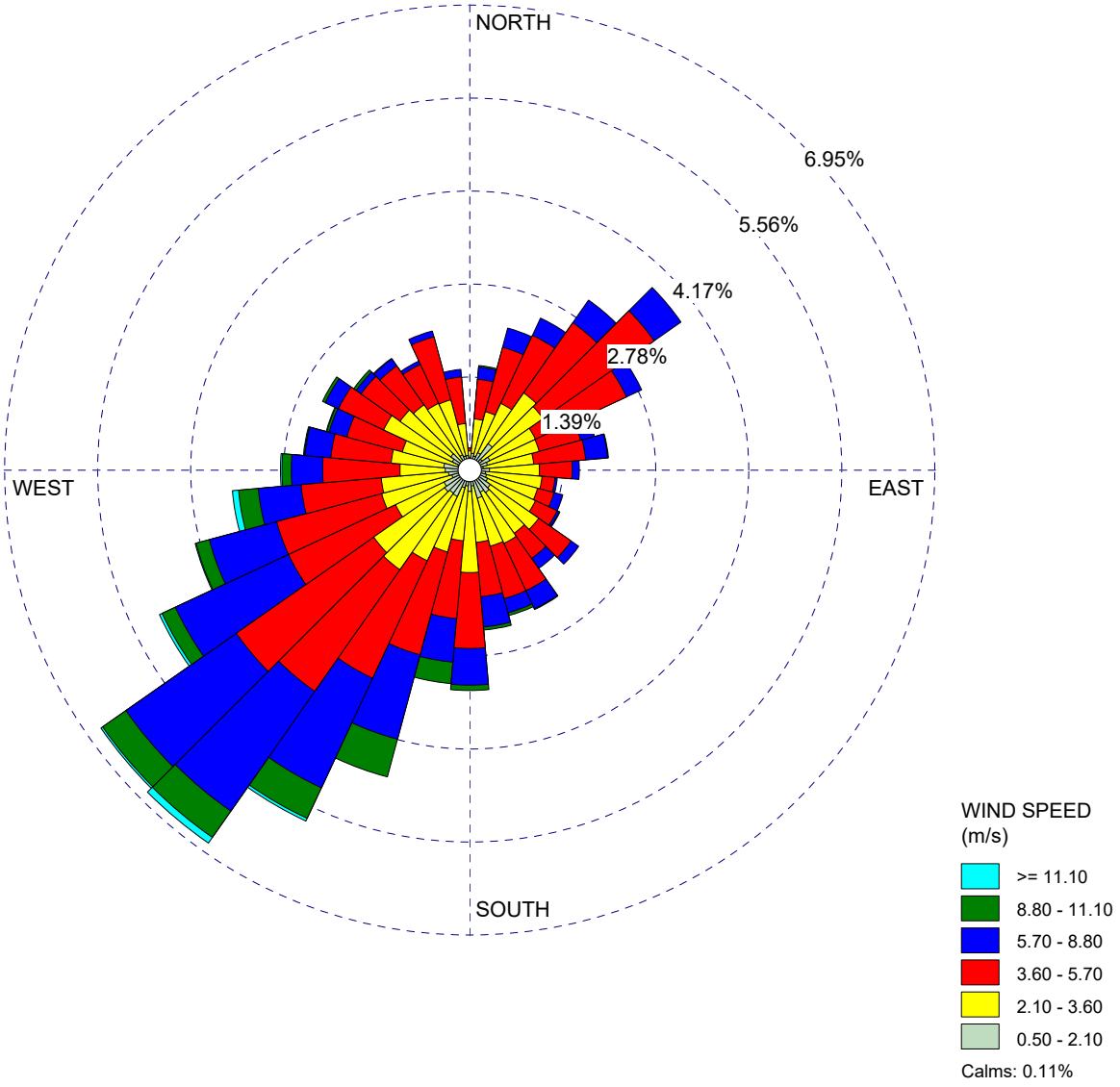
COMMENTS:	DATA PERIOD: **Start Date: 01/01/2021 - 00:00** **End Date: 31/12/2021 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **0.06%**	TOTAL COUNT: **8759 hrs.**	
	AVG. WIND SPEED: **4.05 m/s**	DATE: **15/03/2024**	PROJECT NO.: **2499**

WIND ROSE PLOT:

NWP Wind Speed and Direction Frequency - 2022

DISPLAY:

Wind Speed
Direction (blowing from)



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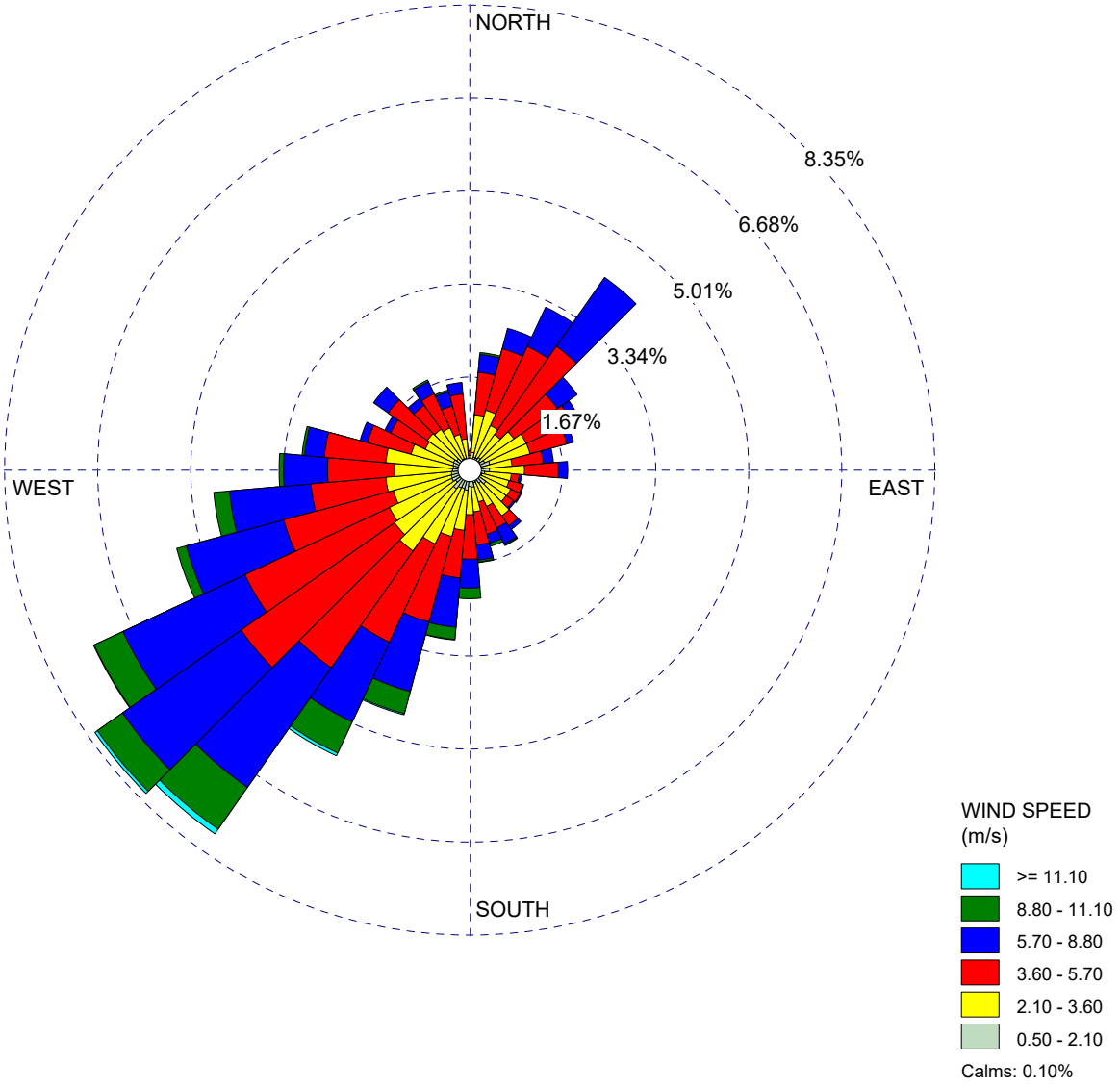
WIND ROSE PLOT:

NWP Wind Speed and Direction Frequency - 2023

DISPLAY:

Wind Speed
Direction (blowing from)



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Appendix IV

Pollutant Contour Profiles

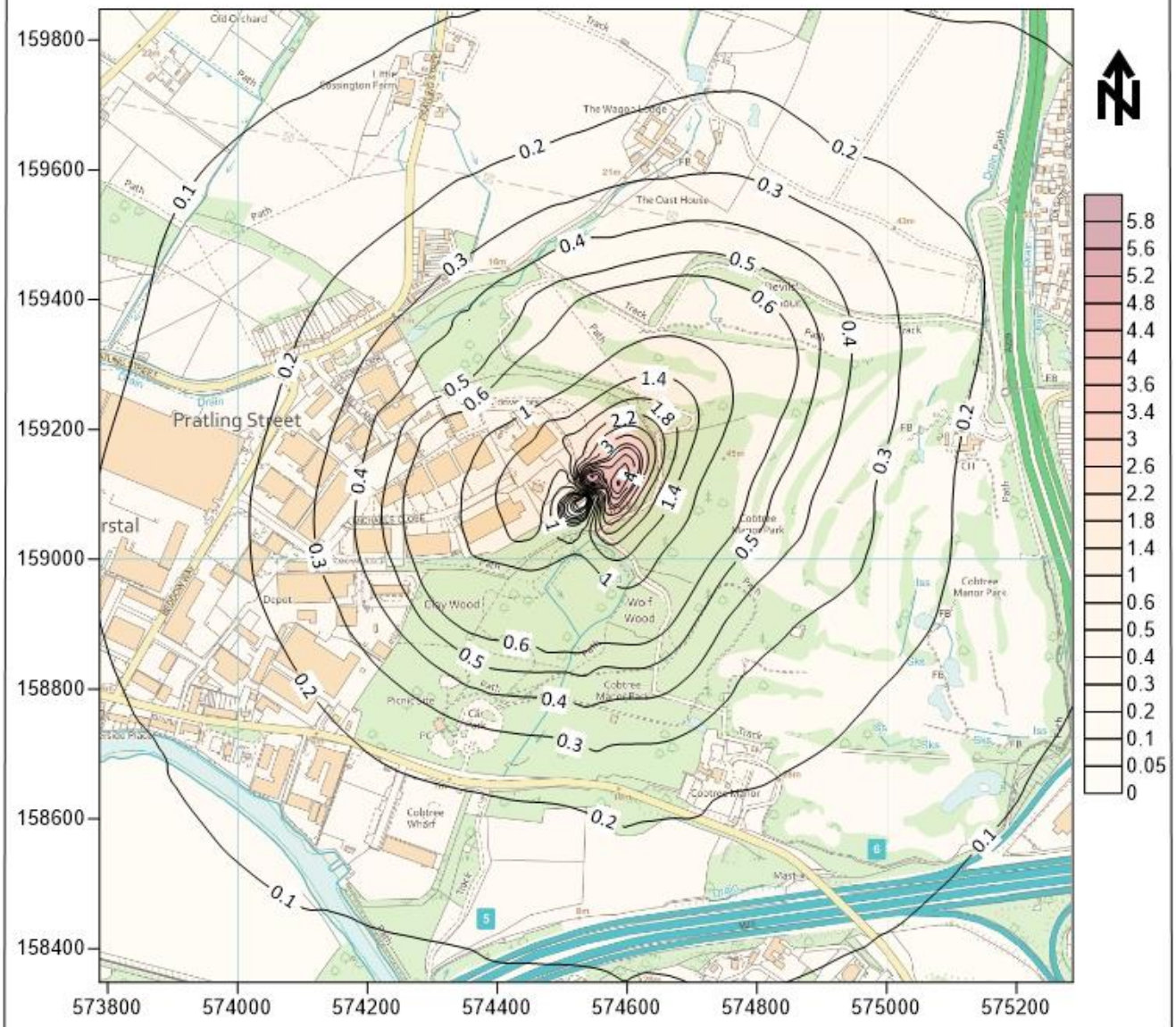

Figure IV Figure 1 - modelled annual mean benzene concentrations ($\mu g.m^{-3}$) based upon 2019 meteorological data (process contribution only)

Oaktree Environmental Ltd
Lime House
2 Road Two
Winsford
Cheshire
CW7 3QZ

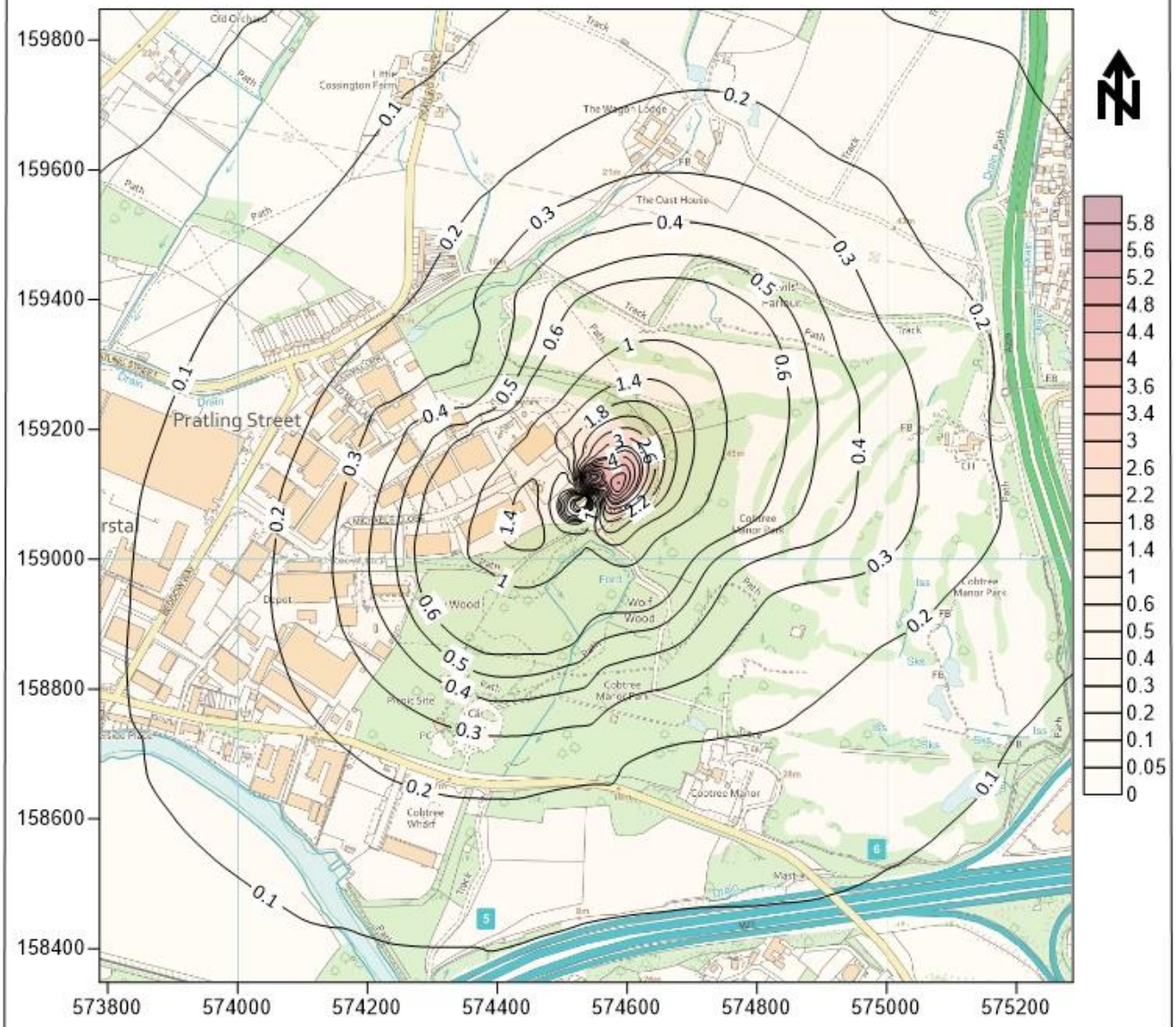

Figure IV Figure 2 - modelled annual mean benzene concentrations ($\mu g.m^{-3}$) based upon 2020 meteorological data (process contribution only)

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2 Road Two
Winsford
Cheshire
CW7 3QZ

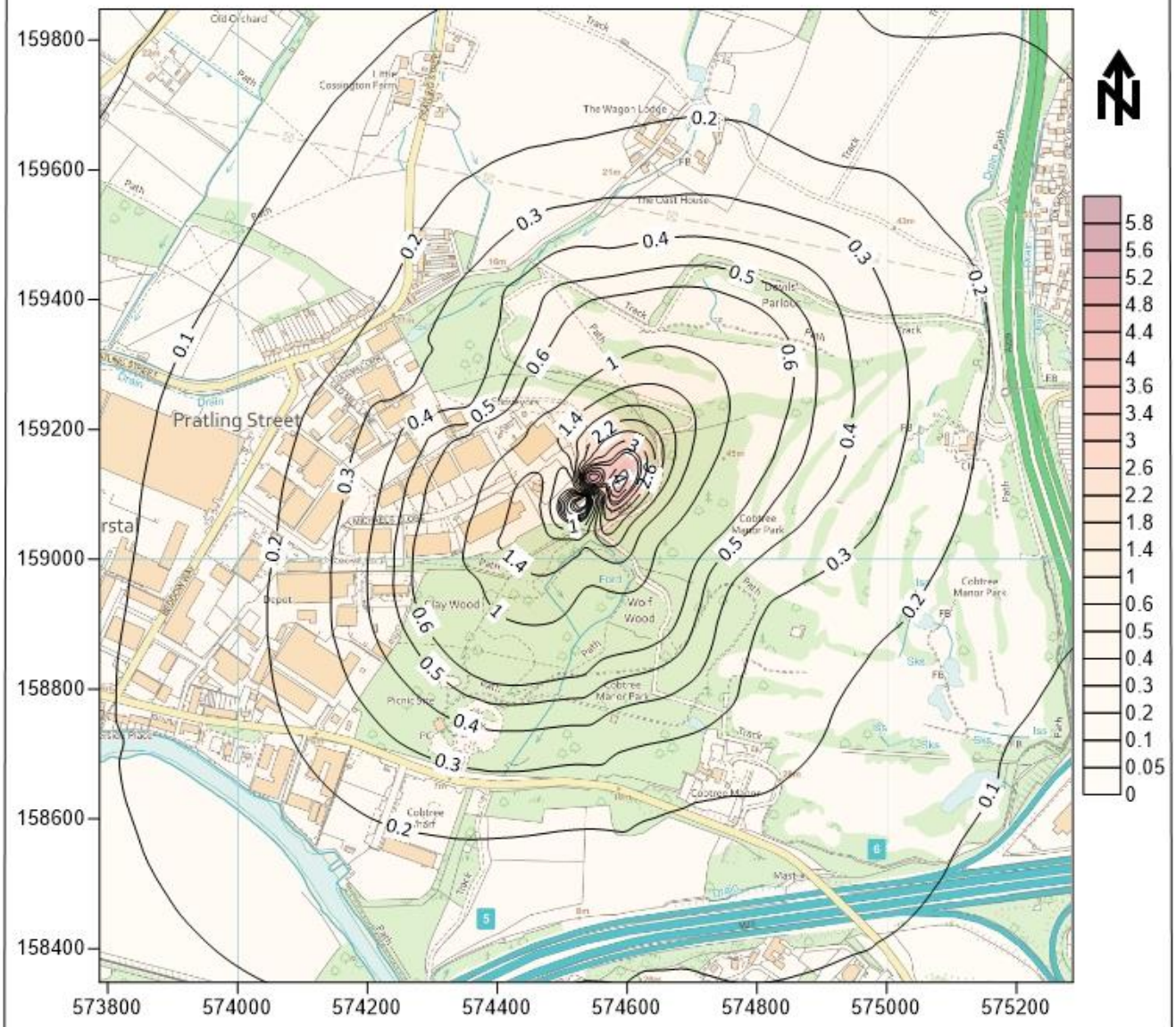

Figure IV Figure 3 - modelled annual mean benzene concentrations ($\mu g.m^{-3}$) based upon 2021 meteorological data (process contribution only)

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Lime House
2 Road Two
Winsford
Cheshire
CW7 3QZ

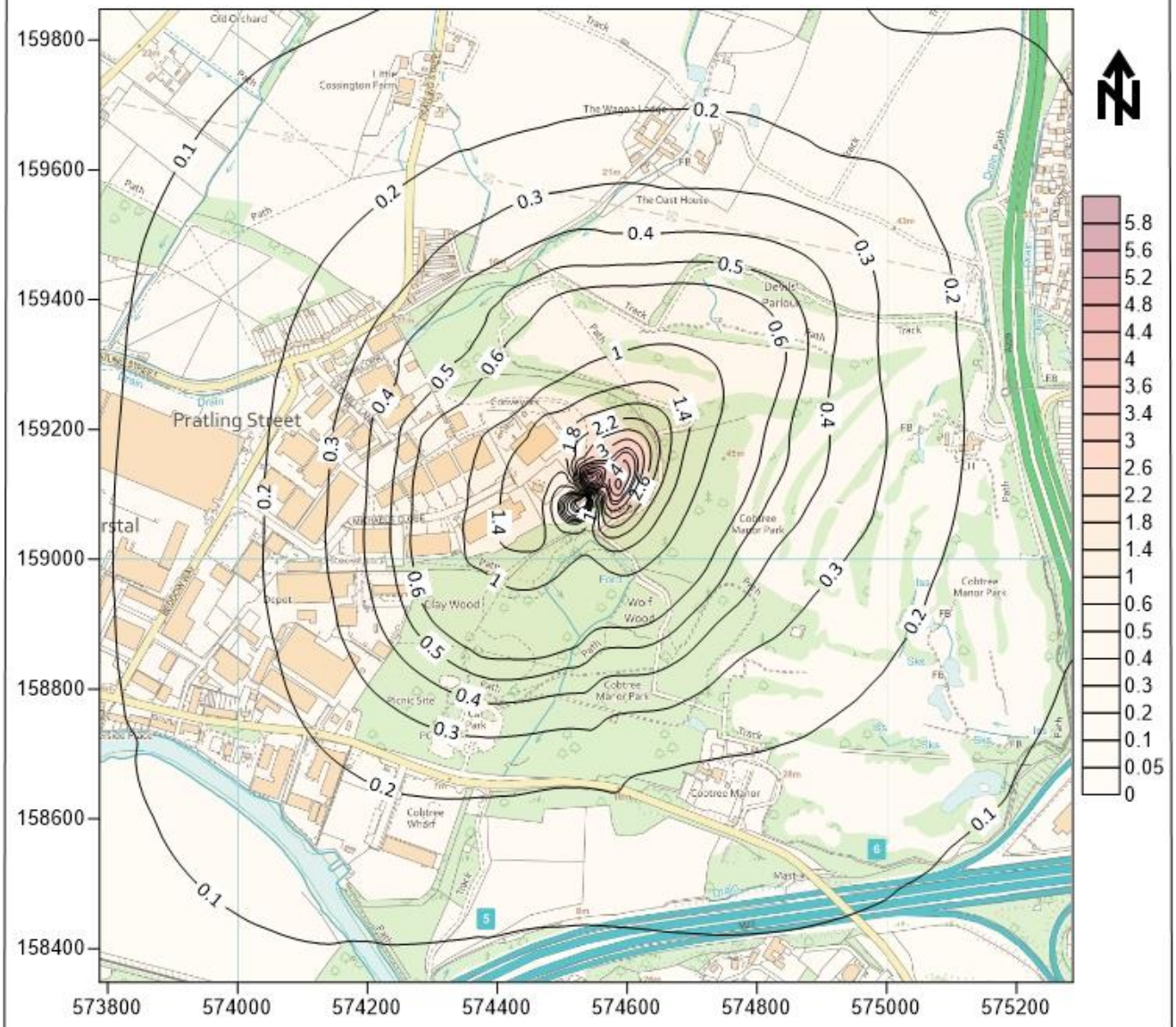

Figure IV Figure 4 - modelled annual mean benzene concentrations ($\mu g.m^{-3}$) based upon 2022 meteorological data (process contribution only)

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2 Road Two
Winsford
Cheshire
CW7 3QZ

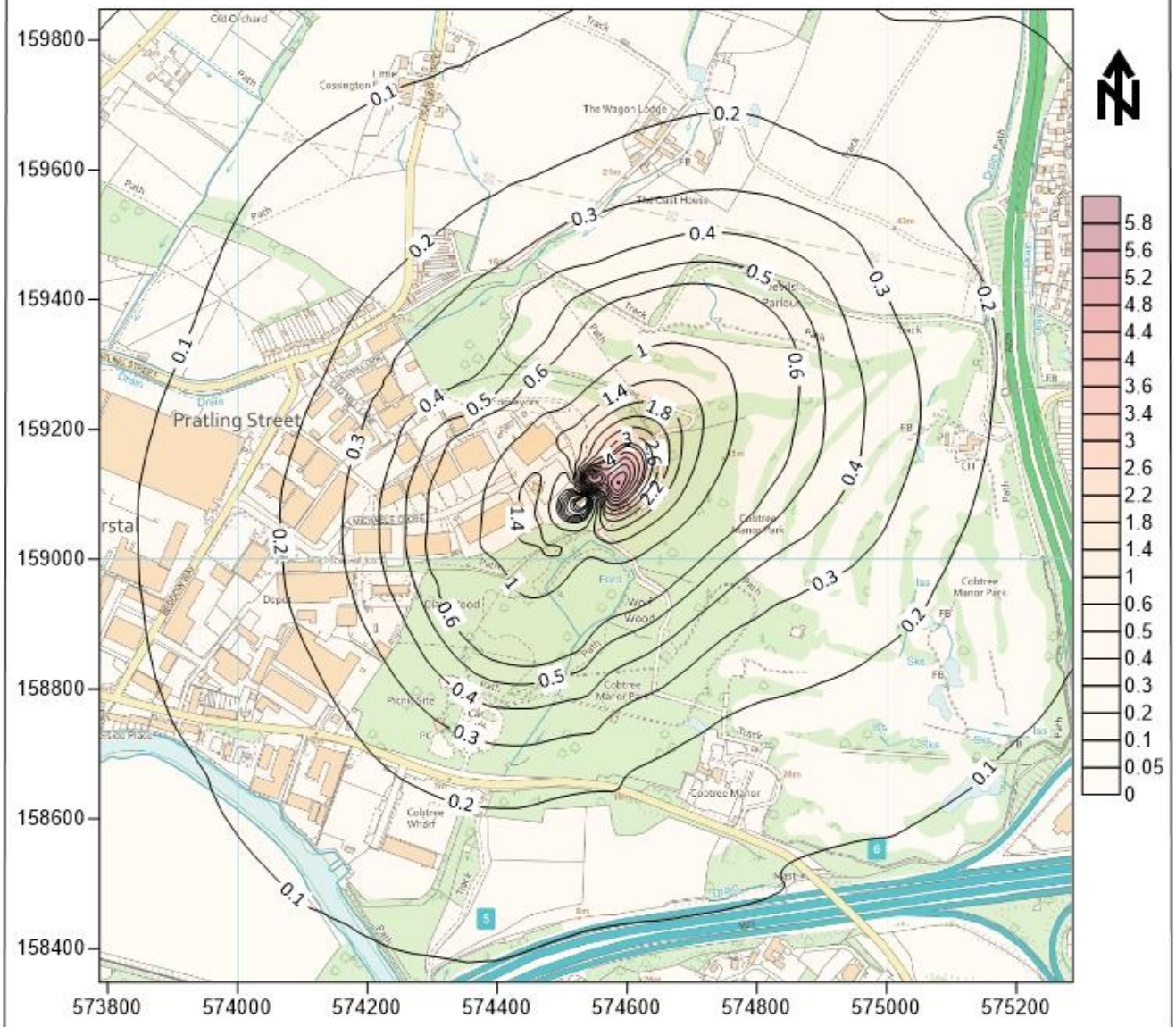

Figure IV Figure 5 - modelled annual mean benzene concentrations ($\mu g.m^{-3}$) based upon 2023 meteorological data (process contribution only)

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Cheshire
CW7 3QZ

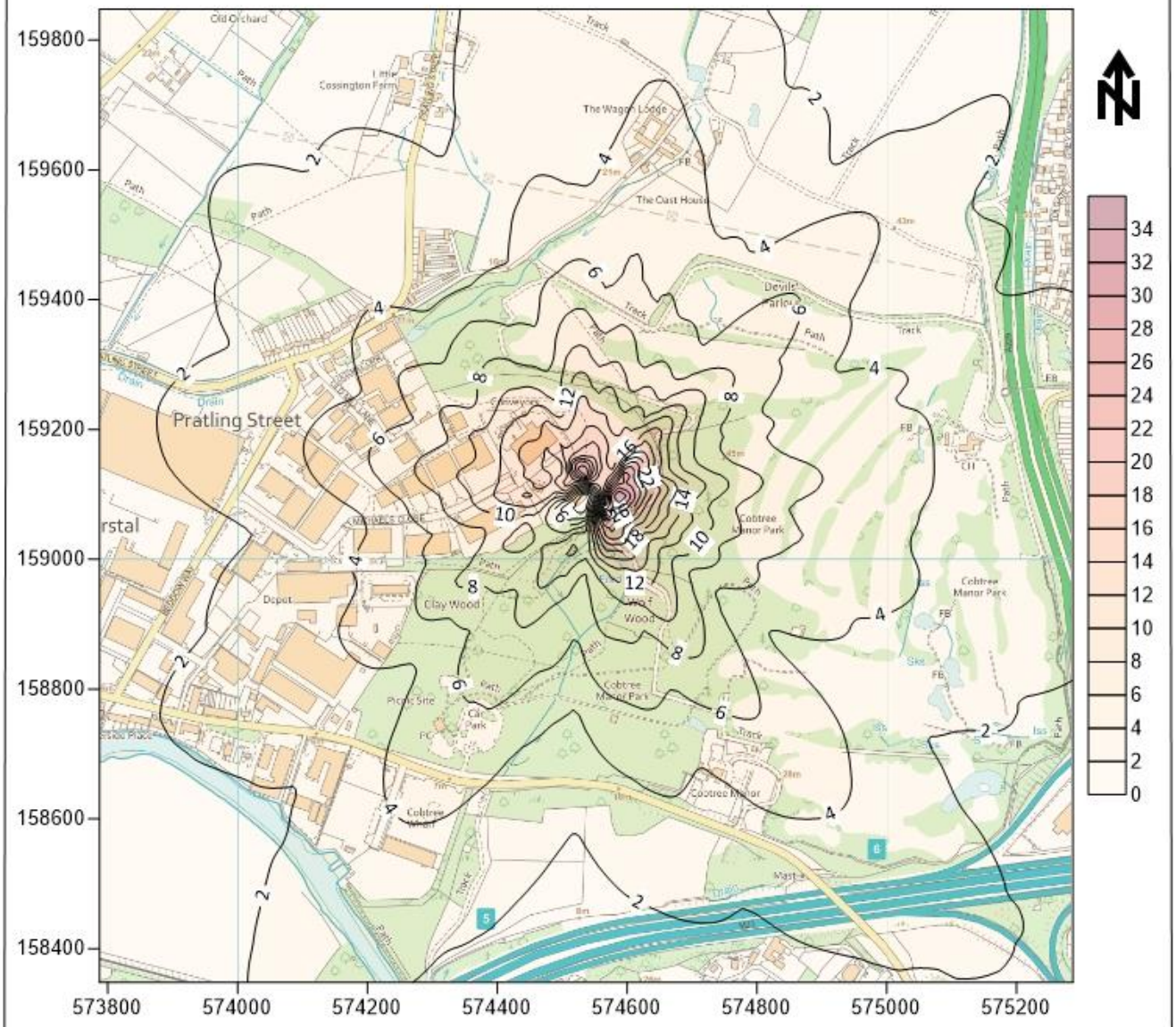

Figure IV Figure 6 - maximum modelled 24-hour mean benzene concentrations ($\mu g.m^{-3}$) (process contribution only)

Oaktree Environmental Ltd
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2 Road Two
Winsford
Cheshire
CW7 3QZ

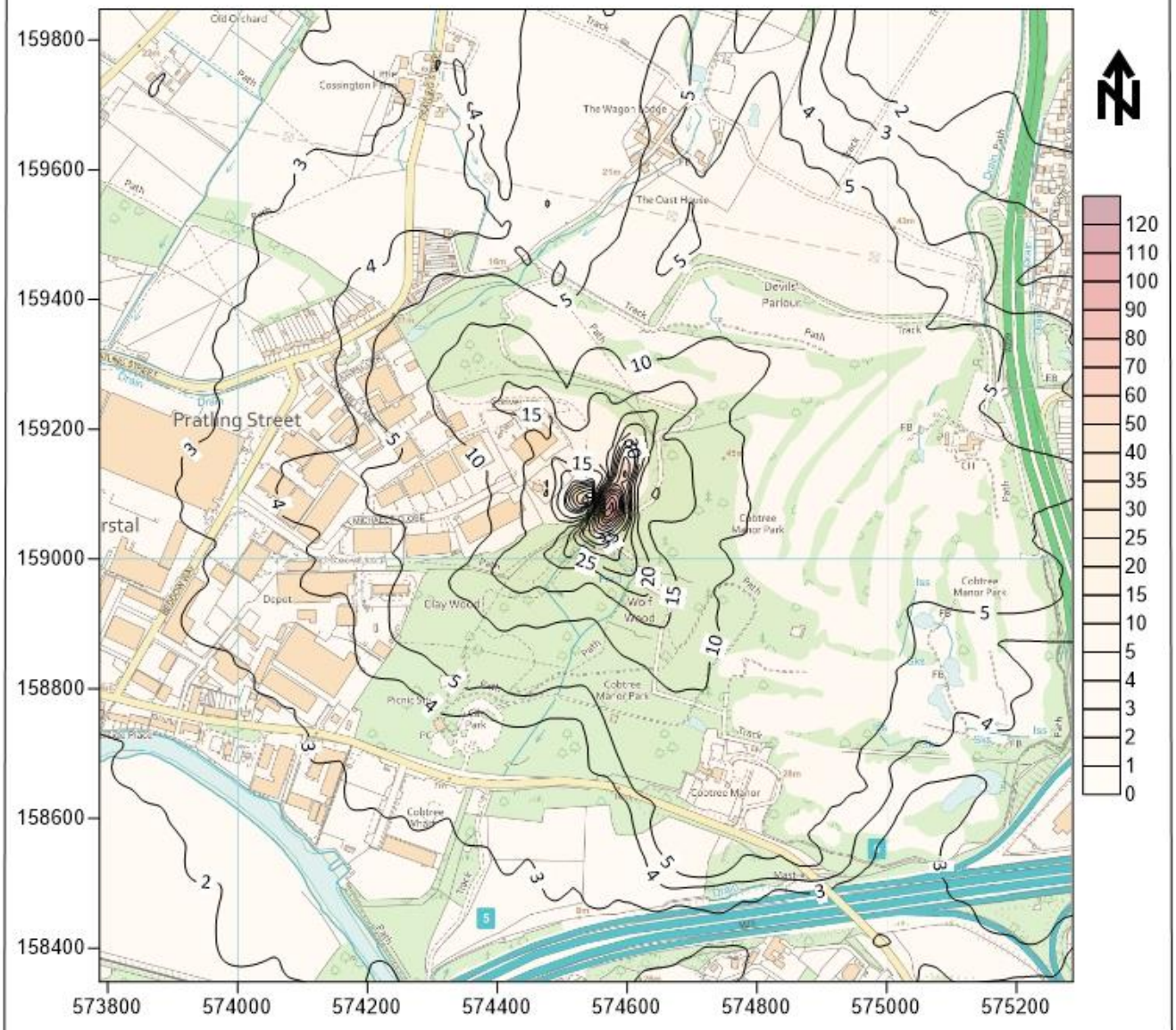

Figure IV Figure 7 - maximum modelled 1-hour mean HCL concentrations (µg.m^{-3}) (process contribution only)

Oaktree Environmental Ltd
Lime House
2 Road Two
Winsford
Cheshire
CW7 3QZ

Permit Application Supporting Document

Appendix X

BAT Assessment

WASTE TREATMENT AND PACKAGING FACILITY, ST MICHAELS CLOSE

Elliot Environmental Drainage Limited

Version:	1.0	**Date:**	01/07/2024		
Doc. Ref:	2499-002-M	**Author(s):**	DY	**Checked:**	
Client No:	2499	**Job No:**	002		

Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

Oaktree Environmental Ltd, Lime House, 2 Road Two, Winsford, CW7 3QZ
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REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	01/07/2024	DY	IA	Internal draft

CONTENTS

1 Introduction

1.1 This document includes an assessment of Best Available Techniques (BAT), which has been undertaken against the relevant BAT measures contained within the following document:

- Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 Establishing Best Available Techniques (BAT) Conclusions for Waste Treatment, Under Directive 2010/75/EU of the European Parliament and of the Council.[1]

1.2 This document has been prepared as part of the permit application for the proposed operation of a waste treatment and packaging facility at St Michaels Close, Aylesford, Kent. Throughout this document, reference has been made to other application documents, where relevant, which should be read in conjunction with this document.

1.3 The application includes installation activities listed under Schedule 1 Part 2 Section 5.3 Part A(1)(a)(ii) and (iv) and Section 5.6 Part A(1)(a) of The Environmental Permitting (England and Wales) Regulations 2016, for the physico-chemical treatment of hazardous and non-hazardous waste, repackaging of hazardous and non-hazardous waste and temporary storage of hazardous waste. As such, the operations are required to comply with the BAT conclusions outlined within Commission Implementing Decision 2018/1147.

[1] Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 Establishing Best Available Techniques (BAT) Conclusions for Waste Treatment, Under Directive 2010/75/EU of the European Parliament and of the Council.

2 BAT Assessment

2.1 Assessment of BAT Against Commission Implementing Decision (EU) 2018/1147

2.1.1 The following sections provide assessment of BAT compliance for the proposed plant against the BAT Conclusions Document.

BAT 1 – Environmental Management System

2.1.2 An EMS has been prepared for the operation, which has been submitted with this permit application, demonstrating compliance with BAT 1.

BAT 2 – Improvement of Overall Performance of Plant

2.1.3 The EMS for the operation contains procedures and measures which demonstrate compliance with BAT 2. All available information in respect of each waste stream including any chemical analysis (as applicable) will be reviewed in order to verify that waste is coded correctly as part of pre-acceptance procedures.

2.1.4 All incoming vehicles upon arrival are required to report to the person in charge of waste acceptance at the site. The details of the load will be recorded and the duty of care note/company documentation will be further checked by the operator to ensure that the load is acceptable at the site, including a visual check prior to the vehicle proceeding to the tipping area. Any deviation from the procedures or problems with any loads will result in tipping facilities being suspended for the offending company. Loads which are not acceptable within the above terms will be rejected.

BAT 3 – Reduction of Emissions to Water and Air

2.1.5 The EMS and supporting management systems for the operation cover the requirements of BAT 3. An inventory of emissions will be included in the EMS.

BAT 4 – Reducing Environmental Risk Associated with Storage of Waste

2.1.6 The site design has been optimised to prevent any unnecessary handling and transport of wastes on site. Storage areas and processing areas are clearly defined on the Site Layout Plan and maximum permitted storage quantities and duration of storage are defined within the site management systems. Records of storage quantities will be assessed continuously against storage limits. Waste storage durations are clearly defined within the site management systems and continuously monitored. Storage arrangements have also been assessed as acceptable in terms of mitigating fire risk as part of the site EMS submitted as part of this permit application. A plant and machinery inventory is maintained within the site EMS and procedures are documented in the EMS for safe storage of drums and vessels. A quarantine area will be maintained on site for rejected loads.

BAT 5 – Reducing Environmental Risk Associated with Handling and Transfer of Waste

2.1.7 Waste storage and handling procedures are covered within the site EMS. Wastes will only be handled and transferred by members of staff who are suitably trained/qualified. Appropriate training will be provided to all members of staff responsible for handling and transfer of wastes. Training procedures are documented within the site EMS. Spillage control procedures are included within the site EMS. Any spillages of fuel/oil will be cleared immediately by depositing sand or absorbents on the affected area. The sand or absorbents will be placed in a skip to be taken to a suitably permitted site for disposal. All spillages of waste and windblown litter will be cleared by the end of the working day in which they occur. All site surfaces will be inspected daily when the site is in operation. Debris will be swept as required and placed in a skip for disposal to a suitably permitted site.

BAT 6 and 7– Monitoring of Emissions to Water

2.1.8 There will be no discharges to surface water from the process.

BAT 8 – Monitoring Emissions to Air

2.1.9 The table below outlines proposed emissions monitoring arrangements, in accordance with BAT.

Table 2.1 – Emission Limits and Monitoring Requirements – Emission Point A1

Pollutant	Emission Limits (mg.Nm^{-3}) Expressed at Reference Conditions of 273.15K, 101.3kPa, dry gas	Monitoring Frequency	Monitoring Method
Hydrogen Chloride (HCL)	5	Every six months	Manual extractive test - EN 1911 or EN 16429
Total Volatile Organic Compounds (TVOC)	20	Every six months	Manual extractive test - EN 12619 or EN ISO 13199

BAT 10 – Monitoring Odour Emissions

2.1.10 An Odour Management Plan (OMP) has been prepared for the operation which contains odour control and monitoring procedures, ensuring compliance with BAT 10.

BAT 11 – Monitoring Annual Consumption of Water, Energy, Raw Materials and Annual Generation of Residues and Waste Water

2.1.11 The site operator will maintain records of water, energy and raw material consumption, in addition to generation of residues and water on at least an annual basis.

BAT 12 and 13 – Reducing Odour Emissions

2.1.12 An OMP has been prepared for the operation which contains odour control and monitoring procedures, ensuring compliance with BAT 12 and 13.

BAT 14 – Reducing Diffuse Emissions, Particularly Including Dust, Organic Compounds and Odour

2.1.13 Diffuse emissions will be controlled as far as is practically possible on-site. The site has been designed to minimise unnecessary transfer material transfer distances. Given the nature of

the feedstocks to be used, dust is not expected to be a significant issue as the site will predominantly process wet wastes, including sludges and liquids. However, wet cleaning methods will be used and site damping down undertaken if required to prevent potential fugitive emissions of dust.

2.1.14 Sludges and liquid wastes requiring treatment will be delivered to site and unloaded to the covered reception area where they will be screened to remove grit and other solids. The resulting sludge/liquid will then be transferred via enclosed line to tanks for introduction to the process, which is contained within the building. Air from the building will be subject to treatment prior to discharge to air via an elevated flue. Hazardous wastes which are received to be packaged for further recovery will be contained within sealed vessels/containers.

2.1.15 Drop heights will be minimised at all times. Speed limits will be enforced on site to minimise the raising of dust.

2.1.16 Regular maintenance will be undertaken on-site to ensure all plant and machinery is in good working order.

2.1.17 The OMP and EMS submitted as part of this application outline the environmental controls which will be in place in detail. A policy of cleanliness will be maintained on site at all times.

2.1.18 A policy of cleanliness will be maintained on site to ensure that waste treatment areas , such as halls, traffic areas and storage areas, are kept clear.

BAT 17 and 18 – Preventing and Reducing Noise Emissions

2.1.19 An Environmental Noise Assessment and Noise Management Plan (NMP) has been submitted as part of this application, ensuring compliance with BAT 17 and 18.

BAT 19 – Optimising Water Consumption

2.1.20 Water use will be monitored and opportunities to reduce water use will be taken, if available and if practicably possible.

BAT 20 – Reducing Emissions to Water

2.1.21 There will be no emissions to surface water. Therefore, BAT 20 will not be relevant to the proposals.

BAT 21 – Preventing or Limiting Environmental Consequences of Accidents and Incidents

2.1.22 An Accident Management Plan (AMP) has been submitted as part of this application which covers procedures which will be implemented to prevent/limit environmental consequences of accidents and incidents, providing compliance with BAT 21.

BAT 22 – Using Materials Efficiently

2.1.23 The operation will predominantly include the treatment of liquid based wastes and sludges. The wastes will be dewatered within a sealed container using a flocculant, and subject to further treatment within a dosing and filtration unit and centrifuge. Treated water will be discharged to the local foul sewerage system. This facility will predominantly treat liquid wastes and sludges, which will be pumped directly from tankers to the treatment facility. It is anticipated that the wet waste treatment process will produce residual waste in the form of oils and silts/fines. The mass of residual waste is likely to comprise between approximately 5% and 10% of the mass of wet waste which is treated at the site. The residues from the treatment process will be packaged within the building for removal for further treatment or disposal at a suitably permitted off-site facility.

BAT 23 – Using Energy Efficiently

2.1.24 Energy use will be monitored regularly and the operator will review and record measures for improving energy efficiency on an annual basis and take any action deemed necessary by the review. A breakdown of energy consumption by type of source will be included as part of the review. Reference should be made to information submitted as part of this permit application for details of basic measures to be used to improve energy efficiency.

BAT 24 – Reducing Quantity of Waste Sent for Disposal

2.1.25 Wastes will be minimised as far as is practicably possible and disposed/recovered in accordance with the Waste Hierarchy. A full list of wastes and disposal/recovery route is included as part of this permit application.

BAT 52 – BAT Conclusions for the Treatment of Water-Based Liquid Waste – Overall Environmental Performance

2.1.26 The EMS includes documented waste pre-acceptance and waste acceptance procedures, demonstrating compliance with BAT 52.

BAT 53 – BAT Conclusions for the Treatment of Water-Based Liquid Waste – Emissions to Air

2.1.27 The physico-chemical treatment operations will be undertaken within an enclosed building, which will be operated under negative pressure. Air from the building will be treated within a dedicated abatement system, with additional dilution and dispersion to be achieved by discharging residual emissions through an elevated flue.

2.1.28 The abatement system will comprise a Nodour Hi-Flo 'twin bed' activated carbon system which is to be utilised in combination with an extraction fan and integral particulate pre-filter bed to protect carbon media. The extracted air will be collected via a duct system and routed to the main feed stock area and passes through a carbon adsorption unit prior to being discharged via the proposed stack.

2.1.29 The system will be maintained by the installation company who will inspect the unit periodically. If odour monitoring indicates the system is the source of an odour, the plant will be checked by an engineer forthwith and the filters replaced if they are considered to be malfunctioning. In routine operation, the filters will be changed at intervals recommended by the manufacturer.

2.1.30 The proposed abatement system accords with the requirements of BAT 53.

2.1.31 Proposed emissions monitoring arrangements will accord with the requirements of BAT 53, as outlined in the response to BAT 8 above.