Appendix D

SITE CONDITION REPORT

Enva E-Waste England Ltd

ENVIRONMENTAL PERMIT APPLICATION

Site Condition Report

OCTOBER 2025

CONFIDENTIAL

Enva E-Waste England Ltd

ENVIRONMENTAL PERMIT APPLICATION

Site Condition Report

TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

PROJECT NO. UK0041058.4846

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QUALITY CONTROL

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Date	24/07/2025	11/09/2025	29/09/2025
Prepared by	Claudia Lee	Claudia Lee	Claudia Lee
Signature			
Checked by	Stuart Clayton	Stuart Clayton	Stuart Clayton
Signature			
Authorised by	Karen Phillipson	Karen Phillipson	Stuart Clayton
Signature			

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1.1 AUTHORISATION AND OVERVIEW

This Site Condition Report (SCR) has been prepared on behalf of Enva E-Waste England Ltd (hereinafter 'Enva') to support the application for a new environmental permit from the Environment Agency (EA). The environmental permit application is for a new Waste Electrical & Electronic Equipment (WEEE) recycling facility (to be operated by Enva), in Dartford, Kent.

1.2 BACKGROUND INFORMATION

The proposed development will involve redevelopment of the existing site for a commercial end use, encompassing a new WEEE recycling facility that will comprise of one large unit and associated external storage and will accept a range of WEEE products including fridges, freezers, cookers and small domestic appliances (SDA) to undergo recycling treatment. There are two types of recycling treatment that will be carried out at the facility: one for Waste Temperature Exchange Equipment (WTEE), consisting of fridges and freezers, and one for Small Mixed WEEE (SMW).

WTEE processing includes pre-destruction in the form of degassing, followed by destruction which incorporates shredding and fraction segregation. SMW recycling begins with a manual dismantling procedure to remove certain components (for example, those containing hazardous substances, such as batteries), and waste SMW then undergoes shredding and fraction segregation. Processing capacity at the facility is proposed to be 35,000 tonnes per annum of Waste Temperature Exchange equipment, and 40,000 tonnes of SMW per annum. WEEE received at the facility will also include solar panels – such items will be stored on site, pending transfer to relevant waste treatment facilities for treatment / disposal. Solar panels will not undergo treatment at the Dartford facility.

1.3 OBJECTIVES

This SCR comprises desk-based research of public and private domain information, along with information supplied from Enva's existing sites, that are very similar in nature to that of the proposed facility. The objectives of this SCR are to:

- Provide information on current site activities and site condition;
- Establish the environmental setting and land pollution history of the site;
- Identify activities that are conducted at the installation which may cause pollution of the land and / or groundwater;
- Identify and assess the preventative measures that are in place and will be put in place to protect the land and / or groundwater;
- Assess whether there is a risk to the land and / or groundwater beneath the site and potential for impact from existing and proposed site activities; and
- Be sufficient to form the basis of any required further work to establish baseline conditions.

1.4 SCOPE OF WORK

The SCR considered the following elements:

- A site inspection / walkover undertaken by Applied Geology on the 25th May 2021;
- Review of existing reports, site history, local geology, hydrogeology and hydrology, examination of archive sources and historical Ordnance Survey maps; and
- Factual and interpretative reporting.

2 SITE DETAILS

This section of the SCR provides the site details, environmental setting and land pollution history for the site within the proposed installation boundary. Table 2-1 below provides the basic site details relevant for this SCR.

Table 2-1 - Site Details

Details	
Name of the applicant	Enva E-Waste England Ltd
Site address	Former Dartford International Ferry Terminal, Clipper Boulevard, Dartford, Kent, DA2 6QB.
National grid reference	TQ 57275 75464
Size	Approximately 6.4 ha
Description of Site	The site lies between the River Thames and Crossways Boulevard, about 3 km northeast of Dartford town centre. The site is roughly L-shaped, and, during the inspection, the site was observed to be primarily a flat, open area, featuring four main structures alongside portacabin-style offices located in the western and southwestern sections of the site. The site will be developed to contain equipment for the recycling of a range of WEEE, which will be contained within suitable buildings with appropriate associated storage arrangements.
Description of Surrounding Area	The site is bounded to the northeast by a flood defence bund (an embankment with an approximate height of 2.5 m) and the River Thames is situated beyond this. Industrial units bound the northwest of the site area. To the southwest, Clipper Boulevard is adjacent to the site and a series of ponds exist beyond this. The site is within close proximity of the A206, as well as a range of industrial building types, such as open storage, port, distribution warehouse, small storage, and industrial warehouses, offices and a hotel.

2.1 GEOGRAPHY AND TOPOGRAPHY

There is a slight rise in level from the northwest to the southeast, with a localised higher area in the southwest. The topographic survey drawing[1] denotes that the surface elevations range between 2.7 m OD to 4.4 m OD.

2.2 INSTALLATION LAYOUT

The site will accept various forms of WEEE, delivered by Heavy Goods Vehicles (HGVs), which will arrive at the facility with appropriate covering and will be unloaded into the appropriate storage areas – storage provisions are outlined in greater detail within the main application supporting report.

Prior to waste being accepted at the facility, pre-acceptance agreements will be established in relation to each incoming load, to enable Enva to determine if there is suitable capacity at the facility, as well as gain an understanding of the types of waste that will be arriving. This will be confirmed and consolidated within acceptance procedures that will be carried out as loads are delivered to the facility – such protocols will be essential to ensuring that pre-acceptance information aligns with the WEEE that is intended to be accepted and treated at the facility and that Enva fully understands the waste. Following this, pre-treatment activities will be undertaken, which will involve removing any potential contaminants from the WEEE, before it can the enter the shredding stages of treatment. For treatment of WTEE, a two-stage process is to be required: stage 1 involves degassing of the unit (stage 1 pre-destruction), which is followed by stage 2, entailing shredding and fraction segregation (stage 2 destruction). Recycling treatment of SMW will differ slightly to that of WTEE. Firstly, a manual dismantling process will be required to remove the components that potentially contain hazardous substances, such as batteries and remove items which cannot undergo mechanical treatment such as gas bottles and oil filled radiators From this, the SMW will undergo shredding and separation into fractions for recovery. Suitable storage will be designated for the various fractions arising from these recycling activities, with appropriate provisions in place (e.g. weatherproof covering). These recycling activities will be housed within one main building (divided into two separate areas).

Below, Figure 2-1 shows the site plan, which consists of one large unit containing all machinery used for recycling (with a dividing wall for the separation of WTEE recycling and SMW recycling), with associated loading docks, service yards and parking for Heavy Good Vehicles (HGVs) and cars. In the figure below, the proposed environmental permit boundary is highlighted in red, comprising one large unit, which will house the majority of the recycling activities, associated storage areas, access parking and general enhancements of the brownfield site. This is the area that will be covered by this SCR.

[1] This forms the basis of the Exploratory Hole Location Plan, Drawing No AG3272-21-02 Rev 2.

Figure 2-1 - Overall Site Layout Plan

3 CONDITION OF THE LAND AT PERMIT ISSUE

3.1 INTRODUCTION

This section of the SCR provides information on the condition of the land within the site boundary.

Information was obtained from both public and private sources and, in particular, was obtained from the sources detailed below.

Table 3-1 - Public Domain Information

Document / Resource Title	Information Obtained
Historical Ordnance Survey Plans	Information relating to: ▪ Historical land use of site ▪ Historical land use of surrounding area
Groundsure Report	Historical mapping of the site and surrounding area.
British Geological Survey (BGS) Website	Type of geology (bedrock and superficial)
GOV.UK Website	Environmental data obtained from MAGIC Maps relating to groundwater source protection zones and aquifer designations. Flood Risk (Flood Map for Planning) Environment Agency Public Register

3.2 ENVIRONMENTAL SETTING

Applied Geology conducted a Ground Investigation on the site area, producing a report on findings (GI Report). Supporting this report, a desk study has been carried out, to understand the geology, hydrogeology and surface water information within the site's environment. Further to this, Campbell Reith produced a 'Land Quality Statement for Thames Europort, Dartford' report in December 2017 – this has also been incorporated into findings as, although a much wider area was covered in this investigation, some exploratory holes upon the current site were also included.

Using the Environment Agency's guidance and MAGIC Map tool, a number of sites with ecological designations have been identified within 10 km of the site. These include 16 Sites of Special Scientific Interest (SSSIs):

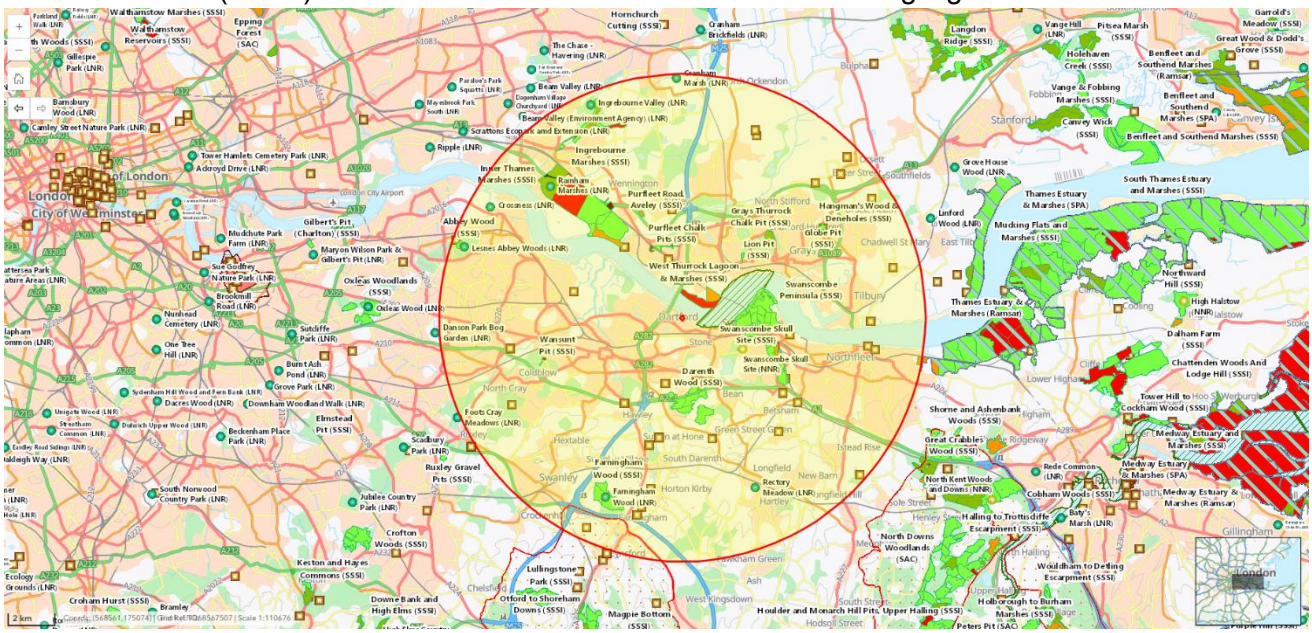
- Hangman's Wood & Deneholes;
- Globe Pit;
- Farningham Wood;
- Abbey Wood;
- Lion Pit;
- Ingrebourne Marshes;
- Inner Thames Marshes,

- Grays Thurrock Chalk Pit;
- Purfleet Road Aveley;
- Purfleet Chalk Pits;
- Wansunt Pit;
- Swanscombe Skull Site;
- South Thames Estuary and Marshes;
- West Thurrock Lagoon & Marshes;
- Darenth Wood; and
- Swanscombe Peninsula.

Also, there is 1 Marine Conservation Zone, Swanscome, 1 National Nature Reserve, Swanscombe Skull Site and the following Local Nature Reserves, including:

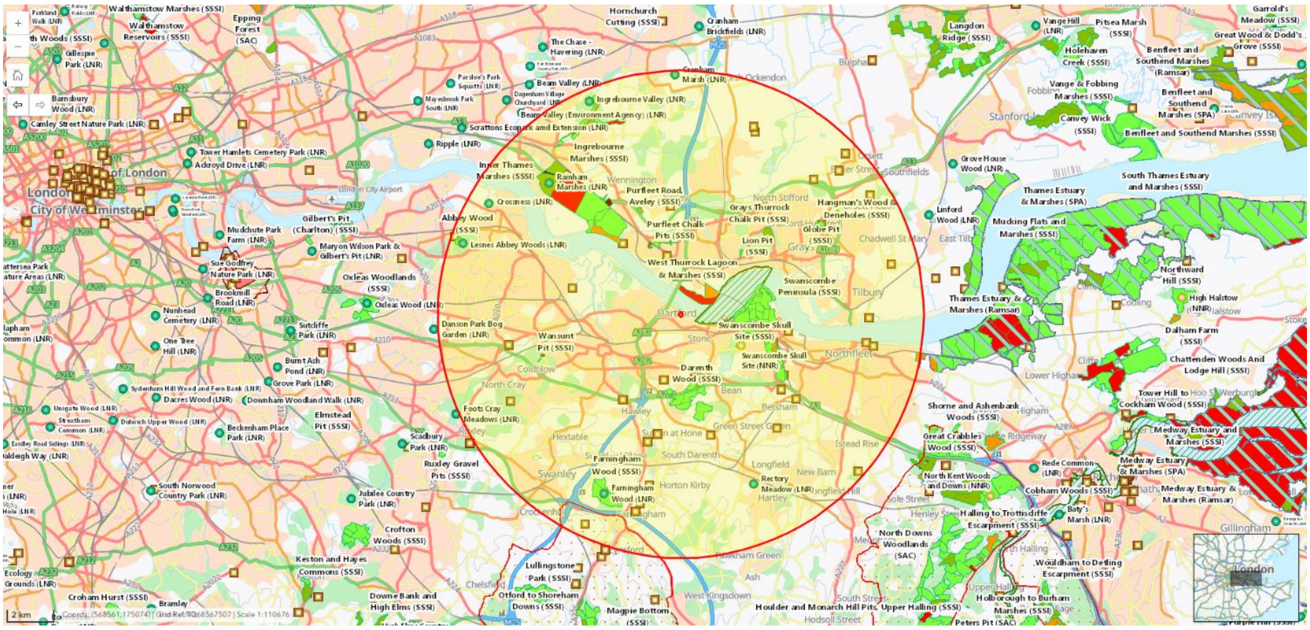
- Crossness;
- Cranham Marsh;
- Farningham Wood,
- Foots Cray Meadows;
- Ingrebourne Valley;
- Lesnes Abbey Woods;
- Rainham Marshes; and
- Rectory Meadow.

Within 10 km of the site there are no Ramsar sites, Special Protection Areas (SPAs), Special Areas of Conservation (SACs) or ancient woodland. The above areas are highlighted in



, below.

Figure 3-1 - Screenshot from MAGIC Map.



3.2.1 REGIONAL AND SITE GEOLOGY

The site is underlain by Solid geology of the Lewes Nodular & Seaford Chalk Formation (undifferentiated) with overlying Superficial Deposits of Alluvium, consisting of clay, silt, sand and peat. Mapping has also indicated that the Alluvium is underlain by Taplow Gravel Member. Such findings were obtained with reference to the Published 1:50,000 scale BGS Map (No. 271 'Dartford') and interactive maps on the GEO Index. 35 m to the east of the site is the nearest BGS archive borehole, with Ref. TQ57NE1244 – this also indicates that the site is underlain by Alluvium (clay and peat to 12.19 m), gravel to 15.39, and then by Chalk and then Chalk with flint. This geology was confirmed by exploratory holes carried out in the southern region of the site along with the finding of 0.5 m of Made Ground. Further confirmation of this published geology was demonstrated in Applied Geology's previous works in the area, which also indicated varying amounts of Made Ground.

3.2.2 MINERAL EXTRACTION

3.2.2.1 Coal Mining

The site is not indicated to be within an area of underground coal or other mining / mineral interaction.

3.2.2.2 Other Mining

Small scale Chalk mining occurred in the area 241 m south of the site. Sporadic underground chalk mining may have occurred 336 m and 416 m away from the side in the southeast and southwest directions respectively.

3.2.3 HYDROGEOLOGY AND HYDROLOGY

3.2.3.1 Hydrogeology

Desk studies have indicated that the Lewes Nodular / Seaford Chalk Formation underlying site is a Principal Aquifer, with the overlying Taplow Gravel classed as a Secondary A Aquifer. Also, the

Alluvium is classified as a Secondary Undifferentiated Aquifer. The site is not located in a Source Protection Zone.

It is anticipated that the direction of the groundwater flow is most likely to be towards the River Thames.

The site does not lie within a Drinking Water Safeguard Zone for surface water or a Drinking Water Safeguard Zone for groundwater.

3.2.3.2 Hydrology (Surface Water)

The River Thames is one of the nearest surface watercourses to the proposed development (flowing to the north of the site), along with a small inland river flowing around the southern boundary of the site to the west. This small inland river flows around the southern boundary of the site, to the west, and joins the River Thames. Other surface waterbodies located near to the site include two ponds, located to the southwest of the site. At the time of Applied Geology's investigation, no water quality data was available in relation to the River Thames in the area of the site.

Applied Geology sampled the River Thames for the testing of water quality of the river in the vicinity of the site, to compare against Water Framework Directive Environmental Standards (WFD ES) (transitional and coastal), but also United Kingdom Drinking Water Standards (UK DWS) where WFD ES were not available for certain determinands. Results identified elevated concentrations of sulphate and boron, with all other determinands being found to be below relevant screening values.

Risk of Flooding from Rivers and Sea and Risk of Flooding from Surface Waters

The risk of surface water flooding has been assessed, by the Environment Agency, as very low, as the site is located in the Zone 2 floodplain of the River Thames but also in an area that is benefitting from flood defences in place.

3.2.4 ENVIRONMENTAL CONSENTS, LICENCES, AUTHORISATIONS, PERMITS AND DESIGNATIONS FOR THE SITE AND SURROUNDING AREA

The following section contains regulatory information associated with the site and its surrounding area. This information has been obtained from the Groundsure Report, as well as information publicly available on the EA Public Register and the HSE COMAH Sites Register. The post code DA2 6QB has been used for the online searches.

3.2.4.1 COMAH Sites

Within 3 miles of the site (using the post code detailed above), 7 establishments were identified on the HSE COMAH 2015 Public Information online search tool and are outlined in Table 3-2.

Table 3-2 - HSE COMAH Public Information Search Results

Establishment Name	Operator Name	Town	Postcode
Grays	Exolum Storage Limited	GRAYS	RM17 5YZ
Grays	Industrial Chemical	GRAYS	RM20 3AG
Grays	Procter & Gamble Product Supply (UK) Limited	GRAYS	RM20 4AL

Establishment Name	Operator Name	Town	Postcode
Long Reach Sewage Treatment Works	Thames Water Utilities Limited	DARTFORD	DA1 5PP
Northfleet	Britannia Refined Metals Limited	GRAVESEND	DA11 9BG
Purfleet Fuels Terminal	Esso Petroleum Company Limited	PURFLEET	RM19 1RS
West Thurrock	Navigator Terminal Thames BV Limited	GRAYS	RM20 3ED

3.2.4.2 Integrated Pollution Prevention Control (IPPC) / Environmental Permitting Regulations (EPR) Authorisations

Using the site's post code, DA2 6QB, a search of the Public Register was undertaken to identify any Environmental Permitting Regulations (EPR) Authorisations in the vicinity, based on the centre point of this post code (as opposed to the centre point of the site area). Within 1 km (of the centre point of the post code area), 66 authorisations were identified which are shown in Figure 3-2 below.

Figure 3-2 - EPR Authorisations within 1 km of the site post code, DA2 6QB

Name	Address	Register	Registration	Distance (km)
CROSSWAYS MANAGEMENT COMPANY LTD	P09203, PLOT C2, PLOT C2, CHARLES PARK, CROSSWAYS BUSINESS PARK, CROSSWAYS BLVD, DARTFORD, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	SO/P09203/001	0.2
JOHN LEWIS PLC	No address information available	Waste Exemption Registrations for England	WEX385089	0.3
BLUE CIRCLE PORT FACILITIES LTD, STAG PLACE, LONDO	LOWER DISCHA, LOWER DISCHARGE, GREENHITHE, STONE, LOWER DISCHARGE, GREENHITHE, STO, NE, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	TH/CTMR.0399/001	0.3
Wiire Limited	Unit 13, Quadrant Court, Charles Park, Dartford, DA98AY	Waste Carriers and Brokers Public Register for England	CBDL173233	0.3
GB Refinish Supplies	Unit 15, Quadrant Court, Crossways Buisness Park, Kent, DA9 9AY	Waste Carriers and Brokers Public Register for England	CBDL20138	0.3
Crosswater Ltd	Crosswater Ltd, 1, Quadrant Court, GREENHITHE, DA9 9AY	Waste Carriers and Brokers Public Register for England	CBDL6469	0.3
Daniel Marin Scrap Metal Dealer	107, CHARLES STREET, GREENHITHE, DA9 9AN	Waste Carriers and Brokers Public Register for England	CBDL436999	0.4
SOLAGLAS LTD	P07824, CLIPPER BOULEVARD, CLIPPER BOULEVARD, EDISONS PARK, CROSSWAYS BUSINESS PARK, DARTFORD KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	SO/P07824/001	0.4
G. B. REFINISH SUPPLIES LTD	GB REFINISH SUPPLIES LTD, 15, QUADRANT COURT, GREENHITHE, DA9 9AY	Waste Carriers and Brokers Public Register for England	CBDU50905	0.5
Roadside Business Solutions - RBS	85, CHARLES STREET, GREENHITHE, DA9 9AN	Waste Carriers and Brokers Public Register for England	CBDL412580	0.5
BLUE CIRCLE DARTFORD ESTATES LTD	CROSSWAYS 25, CROSSWAYS 25, PHASE 4 RECLAIMATION, CROSSWAYS 25, PHASE 4 RECLAIMATI, ON, LONG REACH, DARTFORD, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	TH/CTWC.1756/001	0.8
corders property maintenance	73 HIBERNIA COURT, NORTH STAR BOULEVARD, GREENHITHE, DA9 9UJ	Waste Carriers and Brokers Public Register for England	CBDL324395	0.8
Andrew Gray trading as A&K FENCING SUPPLIES	28, STEELE AVENUE, GREENHITHE, DA9 9PH	Waste Carriers and Brokers Public Register for England	CBDU45020	0.8
MARKLAND RENOVATIONS	1, BRANTON ROAD, GREENHITHE, DA9 9JU	Waste Carriers and Brokers Public Register for England	CBDL468125	0.8
Nature Building & Garden Solutions	3, BRANTON ROAD, GREENHITHE, DA9 9JU	Waste Carriers and Brokers Public Register for England	CBDL515965	0.8
DO Cooling Solutions	14, DULCIE CLOSE, GREENHITHE, DA9 9UL	Waste Carriers and Brokers Public Register for England	CBDL350109	0.9
SRS HEATING LIMITED	16, BRANTON ROAD, GREENHITHE, DA9 9JU	Waste Carriers and Brokers Public Register for England	CBDU179764	0.9
Hawk Haulage Ltd	11, WINSTON CLOSE, GREENHITHE, DA9 9DG	Waste Carriers and Brokers Public Register for England	CBDL308880	0.9
furlong flooring (southern)	FURLONGS CARPETS (SOUTHERN) LTD, CLIPPER BOULEVARD WEST, DARTFORD, DA2 6QN	Waste Carriers and Brokers Public Register for England	CBDL95555	0.9
Supreme Surfaces Ltd	2, CHURCH PATH, GREENHITHE, DA9 9JR	Waste Carriers and Brokers Public Register for England	CBDL451457	0.9
Scoops Domestic Appliance Services	3, STEELE AVENUE, GREENHITHE, DA9 9PQ	Waste Carriers and Brokers Public Register for England	CBDL537714	0.9
Darren Snapes trading as Darren Snapes	75, CHARLES STREET, GREENHITHE, DA9 9AN	Waste Carriers and Brokers Public Register for England	CBDU307246	0.5
SOLAGLAS LTD	P07981, SOLAGLAS PLOT 32/33, SOLAGLAS PLOT 32/33, CLIPPER BOULEVARD, EDISONS PARK, CROSSWAYS BUSINESS PARK, DARTFORD	Environmental Permitting Regulations - Discharges to water and groundwater for England	SO/P07981/001	0.5
Igma Imaging Ltd	IGMA IMAGING LTD, QUADRANT COURT, GREENHITHE, DA9 9AY	Waste Carriers and Brokers Public Register for England	CBDL297117	0.5
BLUE CIRCLE PORT FACILITIES LTD, STAG PLACE, LONDO	UPPER DISCHA, UPPER DISCHARGE, GREENHITHE, STONE, UPPER DISCHARGE, GREENHITHE, STO, NE, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	TH/CTMR.0398/001	0.5
CROSSWAYS MANAGEMENT CO LTD	P04404, CROSSWAYS BUSINESS PARK, CROSSWAYS BUSINESS PARK, ADMIRALS PARK, DARTFORD, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	SO/P04404/001	0.6
CROSSWAYS MANAGEMENT COMPANY	P04404, CROSSWAYS BUSINESS PARK, CROSSWAYS BUSINESS PARK, ADMIRALS PARK, DARTFORD, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	SO/P04404/002	0.6
DUNELM LIMITED	No address information available	Waste Exemption Registrations for England	WEX369961	0.6
Ryan May	1B, ST. MARYS ROAD, GREENHITHE, DA9 9AS	Waste Carriers and Brokers Public Register for England	CBDU578806	0.6
Lt Building Services	2, SUTHERLAND CLOSE, GREENHITHE, DA9 9QJ	Waste Carriers and Brokers Public Register for England	CBDL364373	0.6
CMT Equipment	C M T GROUP, RIVERBRIDGE HOUSE, ANCHOR BOULEVARD, CROSSWAYS BUSINESS PARK, DARTFORD, DA2 6SL	Waste Carriers and Brokers Public Register for England	CBDL318836	0.7
Global Group Supplies Ltd	GLOBAL GROUP, RIVERBRIDGE HOUSE, ANCHOR BOULEVARD, CROSSWAYS BUSINESS PARK, DARTFORD, DA2 6SL	Waste Carriers and Brokers Public Register for England	CBDL492159	0.7
BECK & POLLITZER ENGINEERING LIMITED	SUITE 2, 2ND FIOOR, RIVERBRIDGE HOUSE, Crossways Boulevard, Dartford, DA26SL	Waste Carriers and Brokers Public Register for England	CBDU218616	0.7
ENGIE IMPACT UK LIMITED	Riverbridge House, Anchor Boulevard, Crossways Business Park, Dartford, DA2 6SL	Waste Carriers and Brokers Public Register for England	CBDU379678	0.7
GLOBAL GROUP SUPPLIES LIMITED	GLOBAL GROUP, RIVERBRIDGE HOUSE, ANCHOR BOULEVARD, CROSSWAYS BUSINESS PARK, DARTFORD, DA2 6SL	Waste Carriers and Brokers Public Register for England	CBDU524783	0.7
HANSON WHARF CONSTRUCTION PROJECTS	JOHNSONS, OFFICES AT JOHNSON'S WHARF, CROSSWAYS, BOULEVARD, GREENHITHE, KENT, DA9 9AD	Environmental Permitting Regulations - Discharges to water and groundwater for England	TH/CASM.0204/001	0.7
HANSON CONSTRUCTION PROJECTS	HANSONGREEN, HANSON CONSTRUCTION PROJECTS OFFCES, JOHNSONS WHARF, CROSSWAYS BOULEVARD, GREENHITHE, KENT, DA9 9AD	Environmental Permitting Regulations - Discharges to water and groundwater for England	TH/CASM.0410/001	0.7
Toolbank ltd	CURTIS HOLT LTD, LONG REACH, GALLEON BOULEVARD, CROSSWAYS BUSINESS PARK, DARTFORD, DA2 6QE	Waste Carriers and Brokers Public Register for England	CBDL592625	0.7
K-MAC Air Conditioning Services	8, CHALICE WAY, GREENHITHE, DA9 9PS	Waste Carriers and Brokers Public Register for England	CBDL329960	0.7
JORDANSP LTD	11, SWALLOW CLOSE, GREENHITHE, DA9 9PT	Waste Carriers and Brokers Public Register for England	CBDL387337	0.7
George Lane trading as Thames Boilers	14, COWLEY AVENUE, GREENHITHE, DA9 9PJ	Waste Carriers and Brokers Public Register for England	CBDU474306	0.8
HANSON QUARRY PRODUCTS EUR LTD%	REDLAND AGGR, REDLAND AGGREGATES LIMITED, GREENHITHE DEPOT, GREENHITHE, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	TH/CNTW.1292/001	0.8
WHITECLIFF PROPERTIES	P07042, BRIDGE LAKE, BRIDGE LAKE, EDISONS PARK, CROSSWAYS BUSINESS PARK, DARTFORD KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	SO/P07042/001	0.8
Bouygues and Laing O'Rourke JV (BYLOR)	Bridge Place 1-2, Anchor Boulevard, Crossways, Dartford, DA2 6SN	Waste Carriers and Brokers Public Register for England	CBDL225429	0.8
SELECT PLANT HIRE COMPANY LIMITED	SELECT PLANT HIRE, BRIDGE PLACE, ANCHOR BOULEVARD, CROSSWAYS BUSINESS PARK, DARTFORD, DA2 6SN	Waste Carriers and Brokers Public Register for England	CBDU450422	0.8
LAING O'ROURKE DELIVERY LIMITED	Laing O'Rourke, Bridge Place, Anchor Boulevard, Dartford, DA2 6SN	Waste Carriers and Brokers Public Register for England	CBDU59393	0.8
LAING O'ROURKE HOLDINGS LIMITED	Bridge Place Anchor Boulevard, Admirals Park Crossways, Dartford, Kent, DA26SN	Waste Carriers and Brokers Public Register for England	CBDU59408	0.8
LAING O'ROURKE INFRASTRUCTURE LIMITED	Bridge Place, Anchor Boulevard, Dartford, Kent, DA2 6SN	Waste Carriers and Brokers Public Register for England	CBDU59413	0.8
MFX RELOCATION LIMITED	M F X RELOCATION LTD, UNIT C, BRIDGE CLOSE, CROSSWAYS BUSINESS PARK, DARTFORD, DA2 6QP	Waste Carriers and Brokers Public Register for England	CBDU83571	0.8
LEND LEASE PROJECTS LTD	BLUEWATER DE, BLUEWATER DEVELOPMENT, NORTHFLEET, BLUEWATER DEVELOPMENT, NORTHFLEE, T, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	TH/CNTM.1937/001	0.8
BLUE CIRCLE DARTFORD ESTATES LTD	CROSSWAYS 25, CROSSWAYS 25, PHASE 4 RECLAIMATION, CROSSWAYS 25, PHASE 4 RECLAIMATI, ON, LONG REACH, DARTFORD, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	TH/CTWC.1756/001	0.8
corders property maintenance	73 HIBERNIA COURT, NORTH STAR BOULEVARD, GREENHITHE, DA9 9UJ	Waste Carriers and Brokers Public Register for England	CBDL324395	0.8
Andrew Gray trading as A&K FENCING SUPPLIES	28, STEELE AVENUE, GREENHITHE, DA9 9PH	Waste Carriers and Brokers Public Register for England	CBDU45020	0.8
MARKLAND RENOVATIONS	1, BRANTON ROAD, GREENHITHE, DA9 9JU	Waste Carriers and Brokers Public Register for England	CBDL468125	0.8
Nature Building & Garden Solutions	3, BRANTON ROAD, GREENHITHE, DA9 9JU	Waste Carriers and Brokers Public Register for England	CBDL515965	0.8
DO Cooling Solutions	14, DULCIE CLOSE, GREENHITHE, DA9 9UL	Waste Carriers and Brokers Public Register for England	CBDL350109	0.9
SRS HEATING LIMITED	16, BRANTON ROAD, GREENHITHE, DA9 9JU	Waste Carriers and Brokers Public Register for England	CBDU179764	0.9
Hawk Haulage Ltd	11, WINSTON CLOSE, GREENHITHE, DA9 9DG	Waste Carriers and Brokers Public Register for England	CBDL308880	0.9
furlong flooring (southern)	FURLONGS CARPETS (SOUTHERN) LTD, CLIPPER BOULEVARD WEST, DARTFORD, DA2 6QN	Waste Carriers and Brokers Public Register for England	CBDL95555	0.9
Supreme Surfaces Ltd	2, CHURCH PATH, GREENHITHE, DA9 9JR	Waste Carriers and Brokers Public Register for England	CBDL451457	0.9
Scoops Domestic Appliance Services	3, STEELE AVENUE, GREENHITHE, DA9 9PQ	Waste Carriers and Brokers Public Register for England	CBDL537714	0.9
LAND LOGICAL DARTFORD LIMITED	Stone Pit 1, Cotton Lane, Stone, Dartford, DA9 9ED	Environmental Permitting Regulations – Waste Operations for England	LB3001SK	0.9
Scott Willson trading as SWGARDENSERVICE	2, TRIVETT CLOSE, GREENHITHE, DA9 9PL	Waste Carriers and Brokers Public Register for England	CBDU473058	0.9
Fire Design Solutions Limited	FIRE DESIGN SOLUTION, LONDON ROAD, GREENHITHE, DA9 9JW	Waste Carriers and Brokers Public Register for England	CBDL251845	0.9
TS & B CONTRACTORS LIMITED	Unit D, Panorama, Bridge Close, Crossways Business Park, Dartford, DA2 6QP	Waste Carriers and Brokers Public Register for England	CBDU148040	0.9
FDS Contracting Limited	152-154, London Road, Greenhithe, Kent, DA9 9JW	Waste Carriers and Brokers Public Register for England	CBDL353070	0.9
FDS Maintenance Limited	152-154 London Road, Greenhithe, Kent, DA9 9JW	Waste Carriers and Brokers Public Register for England	CBDL374561	0.9
Moat Homes Ltd	Mariner House, Galleon Boulevard, DARTFORD, DA2 6QE	Waste Carriers and Brokers Public Register for England	CBDL11362	0.9
steves carpets ltd	STEVES CARPETS, LONDON ROAD, GREENHITHE, DA9 9JX	Waste Carriers and Brokers Public Register for England	CBDL357124	0.9
STEVE'S CARPETS LTD	STEVES CARPETS, LONDON ROAD, GREENHITHE, DA9 9JX	Waste Carriers and Brokers Public Register for England	CBDL92784	0.9
WHITECLIFF PROPERTIES	P07041, THAMES LAKE, THAMES LAKE, EDISONS PARK, CROSSWAYS BUSINESS PARK, DARTFORD, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	SO/P07041/001	0.9
CREST HOMES (WESTERHAM)LTD	GLOBE WHARF, GLOBE WHARF, GREENHITHE, KENT, GLOBE WHARF, GREENHITHE, KENT	Environmental Permitting Regulations - Discharges to water and groundwater for England	TH/CTWC.3417/001	1.0
GLOBAL INTELLIGENT LOGISTICS (UK) LTD	GLOBAL INTELLIGENT LOGISTICS LTD, 2 WATERSIDE COURT, GALLEON BOULEVARD, CROSSWAYS BUSINESS PARK, DARTFORD, DA2 6NX	Waste Carriers and Brokers Public Register for England	CBDU63890	1.0
TSM Heating Services Ltd	T S M HEATING SERVICES LTD, GALLEON BOULEVARD, DARTFORD, DA2 6NX	Waste Carriers and Brokers Public Register for England	CBDL421093	1.0
CLEARWAY ENVIRONMENTAL SERVICES (U.K) LIMITED	CLEARWAY, FOUNTAIN HOUSE, ANCHOR BOULEVARD, CROSSWAYS BUSINESS PARK, DARTFORD, DA2 6QH	Waste Carriers and Brokers Public Register for England	CBDU105159	1.0
JACKSON CIVIL ENGINEERING GROUP LIMITED	No address information available	Waste Exemption Registrations for England	WEX408108	1.0
JACKSON CIVIL ENGINEERING GROUP LIMITED	No address information available	Waste Exemption Registrations for England	WEX421186	1.0

No IPPC authorisations were identified on the public register within 1 km of the centre of the DA2 6QB post code area.

3.2.4.3 Local Authority Environmental Permits

A search of the Public Register for Dartford Borough Council was performed using the site's post code. No authorisations or licences were identified in the vicinity of the site, based on the centre point of post code area.

3.2.4.4 Radioactive Substances Authorisations

A search of the Public Register was performed, using the site's post code, DA2 6QB. The search was based on the centre point of this post code area, rather than the centre point of the site area. Within 1 km of the centre point of this post code, no radioactive substances permits were identified within the search. The following table, Table 3-3, lists the radioactive substance permits located closest to the central point of this postcode area:

Table 3-3 - Radioactive Substances Authorisations

Name	Address	Permit Type	Permit Number	Distance (km)
Dartford & Gravesham NHS Trust	Darent Valley Hospital, Darenth Wood Road, Dartford, DA2 8DA	Keeping & Use of Radioactive Materials and Disposal of Radioactive Waste	DB3035DD	2.3
Brittania Refined Metals Limited	Botany Road, Northfleet, DA11 9BG	Disposal of Radioactive Waste	YB3951KC	3.8

3.2.4.5 Groundwater and Surface Water Abstractions

The nearest groundwater abstraction is noted to be 436 m west, used for spray irrigation. Within 500 m of the site, no surface water abstractions were identified. Further to this, within 1 km of the site, there are no identified potable water abstraction licences: the nearest is located 1868 m southeast.

3.2.4.6 Discharge Consents

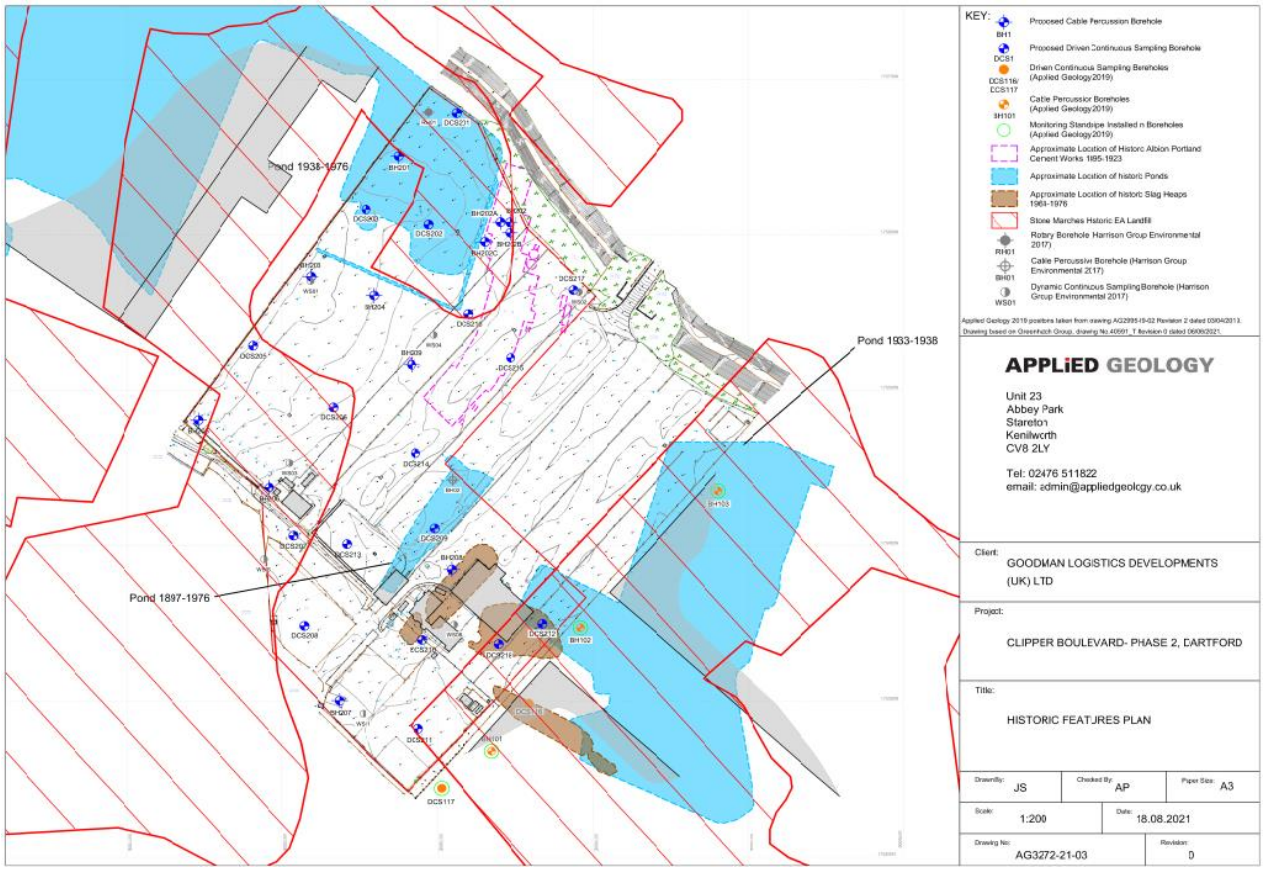
Within 500 m of the site, three licensed discharges were identified. The closest discharge was found to be 163 m northwest, with discharge entering the River Darent, followed by a discharge 223 m southeast into Freshwater River and 375 northwest, also into Freshwater River. There is evidence of seven revoked discharge licenses within 500 m of the site, including one noted to be 104 m north, which was related to mineral workings, which entered the River Thames (revoked in 1985). The most recent revocation was noted to be in 2006.

There are no current discharge consents to Controlled Waters within 250 m of the site. There are records of a total of six historical consents, which are now revoked, between 98 m southwest and 223 southeast of the proposed site area.

3.2.4.7 Operational and Non-Operational Landfills

Within 500 m of the site, there are records of eight historical landfill sites. One of these is listed as being located on this site in question, listed only by the address: Stone Marshes, Stone, Kent. It is mapped to have covered the northwest, west and southeast areas of this site area, not the centre. Further details, such as the operator and dates of activity are not available, however the landfill type was found to be listed as 'Inert, Industrial, Commercial and Household'. The approximate extents of the former landfill are overlaid on the drawing of the site area, shown in Figure 3-3 below.

Figure 3-3 - Diagram to Show the Approximate Extents of Historical Landfill on Site Area.



3.2.4.8 Registered Waste Transfer / Treatment Sites

A search of the public register was undertaken using the site's postcode, DA2 6QB. Therefore, the search was performed on the basis of the centre of the postcode area, rather than the centre of the site area. Within 1 km, one waste operation permit was identified:

Table 3-4 - Waste Operations Permits identified nearby

Name	Address	Site Type	Permit Number	Distance (km)
Land Logical Dartford Limited	Stone Pit 1, Cotton Lane, Stone, Dartford, DA9 9ED	A25: Deposit of waste to land as a recovery operation	LB3001SK	0.9

3.2.4.9 SSSIs and Sensitive Habitats

The location of the site is within a SSSI Impact Risk Zone. As outlined in Section 3.2, there are various receptors in the vicinity of the site area, including 16 SSSIs, a Marine Conservation Zone, a National Nature Reserve and 9 Local Nature Reserves. A Priority Habitat (mudflats) is located 60 m to the northeast, at the edge of the River Thames. Ponds situated to the southwest are noted to be an Open Mosaic Habitat for insects.

3.2.4.10 Nitrate Vulnerable Zones

The site is not located in a designated Nitrate Vulnerable Zone (NVZ) as per the 2017 designations (England) as shown on MAGIC.GOV Maps.

3.2.4.11 Radon

The site is not in an area that is affected by radon. Less than 1 % of homes are above the Action Level. Therefore, no radon protection measures are considered necessary for new properties.

3.3 POLLUTION HISTORY

3.3.1 POLLUTION INCIDENTS WHICH MAY HAVE AFFECTED THE LAND

Within 250 m of the site, records show evidence of four pollution incidents.

Table 3-5 - Pollution Incidents

Pollutant	Date	Severity of Incident	Distance from Site
Inorganic chemicals or products	November 2001	Category 4 – no impact to water, land or air	On-site
Diesel	February 2003	Category 3 – minor impact to water	20 m northeast
Specific waste materials	April 2003	Category 3 – Minor impact to water and land	
Diesel	April 2001	Category 3 – minor impact to water	

3.3.2 HISTORICAL LAND USE AND ASSOCIATED CONTAMINANTS

A study has been undertaken of Historical Ordnance Survey maps, alongside a Groundsure Report and a previous report entitled ‘Land Quality Statement for Thames Europort, Dartford’. This latter report was produced by Campbell Reith in December 2017 and covers a greater extent than this site area. This has also been incorporated into findings for this SCR, as it did include some exploratory holes upon this site.

3.3.2.1 Site History

The site area (and surrounding area) is detailed within Table 3-6 and Table 3-7 below:

Table 3-6 - Site History Identified Features

Feature	Description	Dates
Drainage ditches	Several crossing the site	1863 - 1867
Albion Portland Cement Works	Along with two unspecified tanks	1895 - 1897
North Kent tramline No longer shown	Running through the centre and south of the site, from a Deepwater Pier located to the northeast	1895 – 1897 1961 - 1976
Expansion of buildings	In the northeast region of the site, buildings have been extended further south and north	1907 - 1923
Marshland	The majority of the site remains as marshland	1907 - 1923
Pond	Reduced in size	1907 - 1923
Albion Portland Cement Works	Cleared from site	1933 - 1939
Large slurry pond / basin	From Kent Portland Cement works, basin extends into the site, by 45 m	1933 - 1939
Pond No longer shown	Form the northwest, a pond extends into the site by 70 m	1933 – 1939 1961 - 1976
Pond	Extends further south, to encompass the westernmost corner of the site.	1946 - 1955
Large slurry pond / basin	From Kent Portland Cement works has been modified and moved further east, so no longer occupies part of the site.	1946 - 1955
Slag heaps	Present in the southeast of the site (from 1964)	1961 - 1976
Freightliner Terminal		1985 - 1987
Four industrial buildings	In the south of the site	1985 - 1987
Unspecified tank	Located next to the main northwesterly building	1985 - 1987
Electricity substation and square building	Southwest area of the site	1985 - 1987

Feature	Description	Dates
Site in use for storage of shipping containers	On site	1985 - 1987
Site in use for shipping container and vehicles	On site	2002 - 2007
Empty	On site	Pre 2010 - 2013
Storage of vehicles	On site	2014 - Present

3.3.2.2 Surrounding Area History

Features identified in the surrounding area of the site are outlined in Table 3-7 below:

Table 3-7 - Surrounding Area History Identified Features

Feature	Description	Distance	Direction	Dates
Village / Hamlet of Stone	Comprises farmhouses, cottages, a church and a rectory with a well.	400 m	South	1863 - 1867
Rail line	Crosses through Stone and is labelled as 'South Eastern Railway Line (North Kent Line)'	400 m	South	1863 - 1867
River Thames	Main River	100 m	North / northeast	1863 - 1867
Albion Portland Cement Works	Cement works along with two unspecified tanks	50 m	Northeast	1895 - 1897
Tramway Deepwater Pier no longer shown	Tramway running from a Deepwater Pier to North Kent line	100 m	Northeast	1895 – 1897 1961 - 1976
Expanded Village of Stone Chalkpit no longer shown	Chalk pit	500 – 750 m	Southwest	1895 – 1897 1961 - 1976
Portland Cement Works	Cement Works	750 m	Southeast	1895 - 1897

Feature	Description	Distance	Direction	Dates
Shield and Greenhithe Cement Works	Cement Works	Adjacent	East / Northeast	1895 - 1897
Expanded Cement works	Cement Works	50 m	Northeast	1907 - 1923
Chalk pit No longer shown	A new development	750 m	Southwest	1907 – 1923 1961 - 1976
Albion, Shield and Greenhithe Portland Cement Works	All cleared from surrounding areas	50 m	Northeast and West	1933 - 1939
Kent Portland Cement Works Extension of Kent Portland Cement Works Partially demolished Complete clearance	Includes a large slurry pond / basin which extends southeast into the site Kiln building has been widened possible to accommodate extra kilns and two extra tanks present. The main kiln buildings removed, along with tramways, two of the southern chimneys and three of the mixing / wash mill tanks.	200 – 250 m	East	1933 – 1939 1946 - 1955 1961 - 1976 1985 - 1987
Sewage works Labelled as ‘Works’	Sewage works	45 m	South	1933 - 1939 1961 - 1976
Pond	Local water feature	0 m	Northwest	1933 - 1939
Extension of Kent Portland Cement Works	Kiln building has been widened possible to accommodate extra kilns and two extra tanks present.	0 m	Southeast	1946 - 1955

Feature	Description	Distance	Direction	Dates
Dartford Tunnel Shown as complete	Works and jetties now shown	750 m	Northwest	1946 – 1955 1961 - 1976
Allotment gardens		100 m	South	1961 - 1976
Industrial buildings	Reduction in industrial buildings in surrounding area.	0 – 50 m	Surrounding	1961 - 1976
Tunnel	Running to / from the pier and seemingly beneath the tram / railway lines	500 m	East	1961 - 1976
Two lakes	Local water feature	30 m	Southwest	1985 - 1987
Commercial buildings	Redevelopment of surrounding area	100 – 250 m	Southwest and Southeast	1988 - 2002
Crossways Boulevard	Redevelopment of surrounding area	200 m	South	1988 - 2002
Warehouse	Redevelopment of surrounding area	50 m	Northwest	1988 - 2002

3.3.3 VISUAL / OLFACTORY EVIDENCE OF EXISTING CONTAMINATION IDENTIFIED BY EXISTING SITE INVESTIGATION AND ASSESSMENT REPORTS

The most recent ground investigation report was conducted by Applied Geology, and this concluded that there was no visual or olfactory evidence of any significant gross contamination observed in the majority of boreholes. However, one of the boreholes (BH205) was able to record a locally deeper area of Made Ground, which was 9.10 m below ground level (bgl) – this had a very strong rotten egg / sulphurous odour recorded between 4.50 m bgl and 9.10 bgl. There were other observations that were notable, which are detailed below.

Table 3-8 - Evidence of Potential Contamination

Borehole Number	Depth Range (m bgl)	Strata	Comment
BH206	1.30 – 1.70	Made Ground – Dark brown gravelly sand	Strong sewage / waste odour
DCS206	1.40 – 1.55	Made Ground – Dark greyish black gravelly clayey sand	Possible hydrocarbon odour
	3.90 – 4.00	Made Ground – Black slightly sandy clayey gravel of asphalt and slag	Slight hydrocarbon odour
DCS207	1.00 – 1.20	Made Ground – Orangish brown and black slightly gravelly sand	Possible hydrocarbon odour
DCS211	1.60 – 2.75	Made Ground – Black sandy gravel of asphalt, quartzite and slag	Slight hydrocarbon odour
DCS214	1.55 – 1.70	Made Ground – Dark grey slightly silty sandy clay	Slight hydrocarbon odour

3.4 SITE RECONNAISSANCE

As part of the ground investigation report, a visual inspection of the site and its surroundings was undertaken, on 25th May 2021 by Applied Geology, to observe and document features, such as access, vegetation, drainage and potential hazards.

As detailed above, there was no visual or olfactory evidence of gross contamination at the site.

3.5 BASELINE REFERENCE DATA

Baseline data for the site is provided for by the GI report, titled Report on Ground Investigation at Clipper Boulevard-Phase 2, Dartford (reference AG3272-21-AM98). Overall, the GI Report concluded that the site condition poses a low risk to human health and controlled water receptors, and so remedial actions are not necessary in relation to this proposed development.

Results obtained during the ground investigation works in relation to the strata that was encountered indicated that made ground was identified across the whole site, generally at depths of 2.4 – 6.0 m bgl – this included hardstanding. The made ground was reported to contain some dark colour (black and dark brown) gravel with slag fragments, however, there was no visual or olfactory evidence of gross contamination in most boreholes. Alluvium was discovered to be beneath made ground layers, with peat also being discovered in these layers. Taplow gravel member was recorded below this, however, was not identified in the western extreme of the site. Chalk was recorded to exist below the Taplow gravel member.

Chemical testing of soils was conducted, with none of the results exceeding the relevant human health screening value. Notable concentrations of arsenic were identified in one localised area, however the general concentrations were not a concern. Negligible levels of TPH and PAH were identified in the investigations undertaken. Overall, the human health risk of soils was deemed to be low, particularly as any potential pathways will be interrupted by construction of buildings (floor slabs) and external yard hardstanding.

Leachate and groundwater investigations were also directly compared to various relevant standards, in particular the UK drinking water standards (UK DWS) and the Water Framework Directive (WFD) Environmental Standards. It was identified, based on results, that there are potential leachable heavy metals in the made ground. In relation to groundwater testing, elevated concentrations of various contaminants were shown, consisting of mainly heavy metals and mostly identified in perched water in the made ground. It was concluded that there is no impact to the aquifers, due to groundwater from Taplow gravel and chalk layers not recording any exceedances. Boron and chloride levels were found to be elevated across many areas of the site, as well as boron in surface water sampling (from the River Thames). The cause of this was concluded to be the natural tidal influx, which resulted in mixing of brackish water and groundwater, as opposed to historical or current activities on site. Historic landfill activities are suspected to be the cause for presence of ammoniacal nitrogen and nitrite in groundwater. Surface water percolation through made ground (which could mobilise contaminants and cause them to enter controlled water receptors) is anticipated to be significantly restricted, as a result of construction on site (of buildings and hardstanding). Therefore, based on results coupled with the context of the site and proposed developments, risk to controlled waters is expected to be of low risk, and specific remedial actions are not considered to be necessary.

4 PERMITTED ACTIVITIES

4.1 OVERVIEW

The site will be accepting various types of WEEE, including fridges and freezers (WTEE) and different types of SMW. This will be delivered to site with accepted WEEE separated into WTEE and SMW. SMW recycling involves an initial manual dismantling procedure, removing all components that could contain hazardous substances or potentially contaminate the resulting fractions. Following this, shredding is to be carried out, which will mechanically treat the SMW and produce fractions for recovery. WTEE recycling begins with a stage 1 pre-destruction process, which involves degassing of the unit. This is also followed by a stage 2 destruction, comprising shredding and subsequent fraction segregation. Again, these fractions will be stored for recovery.

4.2 PERMITTED AND NON-PERMITTED ACTIVIES

This development will be very similar in nature to another of Enva's sites, located in Grantham, and therefore, the prescribed and directly associated activities for this WEEE treatment facility, under the Environmental Permitted Regulations 2016, as amended, are considered to be as follows:

Table 4-1 - Permitted Activities

Activities	References	Description
Permitted Activities	S5.3 A(1)(a)(ii) - Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment.	Treatment of waste temperature exchange equipment, involving stage 1 degassing and stage 2 destruction processes.
		Mechanical treatment of small mixed WEEE.
		Granulation of hazardous electrical and communications cable.
	S5.6 A(1)(a) – Temporary storage of hazardous waste in a facility with a total capacity exceeding 50 tonnes pending any of the activities listed in Section 5.1, 5.2 and 5.3.	Storage of hazardous waste pending on-site treatment or off-site transfer
Directly Associated Activities	Storage of processed materials	Storage of recovered fractions and shredder residue following treatment.
	Raw materials storage	Storage of raw materials including nitrogen, lubricating oil and diesel.
	Abatement systems (for emissions to air)	Bag filters, carbon filters, HEPA filter and wet scrubber serving the treatment plant.
	Surface water discharge from roof and yard areas	Uncontaminated surface water.
	Discharge to sewer under trade effluent consent	Wastewater from welfare facilities only – there will be no process water.

4.3 ENVIRONMENTAL RISK ASSESSMENT

Supporting the environmental permit application, an environmental risk assessment (ERA) has been conducted to understand the potential risks that are posed by the proposed development and the measures that will be implemented to mitigate such risks and prevent environmental impacts. This ERA will support this SCR. The ERA can be found in Appendix E of the main supporting report for this environmental permit application.

5 RISKS TO LAND AND GROUNDWATER

An assessment of risks to land and groundwater arising from activities to be undertaken by Enva at the Dartford site is provided within this SCR. Activities to be undertaken and the associated materials are identified within this SCR, alongside mitigation measures that will be employed and the resultant risk.

5.1 STORAGE TANKS AND OTHER CONTAINERS

Table 5-1 - Above Ground Tanks and Vessels

Tank Ref.	Contents	Volume (litres or m^3)	Secondary / Tertiary Containment Feature
Integrally bunded Fuel tank	Ultra Low Sulphur Gasoil, ULSG	5 m^3	Secure container supported by integral bunding with 110% capacity located on impermeable hardstanding surface with a sealed drainage system.

There are no further above-ground storage tanks, however, there is additional storage of materials in smaller containers (such as IBCs and drums) will be located within suitable storage areas on site, as outlined below in Table 5-2, all of which will be supported by a hardstanding surface. Appropriate containment measures will be in place – a full Relevant Hazardous Substances (RHS) review has been carried out and is appended to this report, in Appendix A. The raw materials outlined in Table 5-2 will be used for engineering purposes. Nitrogen, required on site for the provision of the inert atmosphere during recycling operations, will be stored under a low pressure in a gas drum. Compressor oil and refrigerants are some of the residual materials expected to arise from recycling operations, which require containment and will be stored in suitable containers, supported by further containment measures, pending dispatch from the facility.

Table 5-2 - Storage of Materials in Smaller Containers

Contents	Container	Volume (m^3 or litres)	Containment Measures
Mobil Rarus 425 (or equivalent)	Drum	50 litres	Stored on bunded plastic pallets.
Carter EP 220 (or equivalent)	Drum	50 litres	Stored on bunded plastic pallets.
Taurus Euro 10 W 40 (or equivalent)	Drum	50 litres	Stored on bunded plastic pallets.
Ultramax 46	Drum	50 litres	Stored on bunded plastic pallets.
Compressor Oil	Drums	250 litres	Stored on bunded plastic pallets.
Refrigerants and Blowing Agent	Drums or Iso Tank	12 x 205 litre or 25,000 litres (respectively)	Stored on bunded plastic pallets.

Drainage infrastructure will be implemented on site, as detailed in Table 5-3.To monitor the integrity of the structures, a CCTV survey of drainage will be conducted every 5 years, to highlight any features of concern that may arise over the course of the 5 year timeframe.

Table 5-3 - Underground Infrastructure

Contents	Containment Measures
Surface water holding tank	Viacon Tubosider Singlestore Tank System with a storage capacity of 1000 m^3.
Surface water drainage	On site drainage infrastructure to divert all surface water run-off into the holding tank.
Foul sewage drainage	Pipework connecting into external sewer network.

The majority of the site will be sump-free. However, there will be a sump associated with the oil interceptor, which will capture all run-off that has passed through the oil interceptor.

5.2 CONCRETE HARDSTANDING AND BUNDS

Hardstanding is present across the whole site, predominantly comprising block paving, which was bedded on sand. This overlaid cemented sand / weak concrete of varying quality and up to a maximum thickness of 0.55 m. In south regions of the site, the hardstanding consists of asphalt (up to 100 m thick). In the southwest of the site, reinforced concrete slab is present.

All areas of the site will be surfaced by impermeable, hardstanding concrete, to protect the underlying environment. All site areas will be operated so as to minimise degradation in the concrete. A Planned Preventative Maintenance Programme will be in place to ensure that any defects are identified and subject to timely repair.

Other than for the storage of engineering materials (outlined in Table 5-2) and the self-containment of the fuel tank, no other bunding arrangements will be required at the facility, as there are no free-flowing liquids to be used throughout processes that will be undertaken at the facility. The only liquid that requires management is to be surface water run-off. Therefore, further bunding arrangements will not be required.

5.3 VEGETATION

Across the site, little to no vegetation is present, with the exception of small weeds and shrubs with some semi-mature trees situated over the boundary fence to the south. These trees are located on an open space / fishing pond, which is adjacent to the south of the site.

5.4 SURFACE WATER FEATURES

The nearest surface watercourses are the River Thames, which flows to the north of the site and a small inland river, which flows around the southern boundary of the site, to the west before entering the River Thames. There are also two ponds to the southwest of the site.

5.5 NATURE OF THE STORAGE AND HANDLING OF MATERIALS

Materials to be stored in containers at site as a result of this application are detailed in Table 5-1 and Table 5-2 above.

All raw materials will be delivered to the site in IBCs/drums by van/small lorry. They will be offloaded within the main building and stored in a designated location, e.g. in the chemical storage area.

Appendix E to the main application contains an Environmental Risk Assessment which summarise the potential risks and the proposed mitigation measures which will be put in place to minimise the risks from the storage and handling of any materials to prevent any pollution to land and or groundwater.

5.6 SURFACE WATER AND FOUL DRAINAGE

The main operational discharge to water from the site comprises only surface water. The processes to be undertaken at this WEEE recycling facility are not anticipated to require any water and therefore, process effluent will not be anticipated to form part of discharges to water. Connection with a nearby sewer will be made for the discharge of foul water.

5.7 POLLUTING SUBSTANCES AND RELEVANT ACTIVITIES

Potentially polluting substances that are to be handled at the facility are detailed in Table 5-4, along with how they are going to be stored and the measures that are to be implemented. A full RHS review has been carried out and is appended to this report, in Appendix A.

Table 5-4 - Potentially Polluting Substances

Substance	Associated Activity	Storage Arrangements
Ultra Low Sulphur Gasoil, ULSG	Fuel for use in off road diesel engine vehicles and stationary diesel engines designed to run on automotive diesel.	Integrally bunded fuel tank
Nitrogen under low pressure	Used to create inert atmosphere during shredding stages of recycling process.	Gas drum
Carter EP 220 (or equivalent)	Industrial gear oil.	Drum, stored on bunded plastic pallet.
Mobil Rarus 425 (or equivalent)	Air compressor oil.	Drum, stored on bunded plastic pallet.
Ultramax 46 (or equivalent)	Hydraulic fluid and additive.	Drum, stored on bunded plastic pallet.
Taurus Euro 10W-40 (or equivalent)	Lubricant and additive.	Drum, stored on bunded plastic pallet.
Compressor Oil	Residual material arising from WTEE recycling.	Drum stored on bunded plastic pallet.
Refrigerants and Blowing Agent	Residual material arising from WTEE recycling	Drum stored on bunded plastic pallet, or iso tank with suitable bunding.

5.8 PREVENTATIVE MEASURES

Pollution preventative measures (physical infrastructure and those relating to testing, inspection and maintenance) for each relevant existing activity associated with the potentially polluting substances have been identified and their extent and condition assessed. For those potentially polluting substances listed in Table 5-4, the nature of the pollution prevention measures has been assessed on the basis of primary, secondary or tertiary containment.

Table 5-5 - Pollution Prevention Measures for Relevant Activities

Substance	Activity	Primary Containment	Secondary Containment	Tertiary Containment
Ultra Low Sulphur Gasoil, ULSG	Delivery	Integrally bunded fuel tank	Impermeable hardstanding surface within reception area.	Automatic penstock valves within drainage system.
	Storage	Integrally bunded fuel tank	Secure container supported by integral bunding with 110% capacity	Located on impermeable hardstanding surface with a sealed drainage system (automatic penstock valve)
	Use	Integrally bunded fuel tank	Impermeable hardstanding surface within area of use.	Automatic penstock valves within drainage system.

6 OPERATIONAL PHASE SCR

In accordance with the template detailed in the EA publication: EPR H5 Site Condition Report: Guidance Templates (Version 3.0 April 2013), the Operational Phase SCR requires the maintenance of four key areas, as follows:

- 4.0 Changes to the activity;
- 5.0 Measures taken to protect land;
- 6.0 Pollution incidents that may have had an impact on land, and their remediation; and
- 7.0 Soil gas and water quality monitoring (where undertaken).

Below, these key areas are included and are intended to be updated and altered as and when required.

4.0 CHANGES TO THE ACTIVITY

Area	Status
Have there been any changes to the activity boundary?	To be completed for future variations.
Have there been any changes to the permitted activities?	To be completed for future variations.
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	To be completed for future variations.

5.0 MEASURES TAKEN TO PROTECT LAND

Area	Status
Measures taken to protect the land	To be completed for future variations.
Checklist of supporting information	To be completed for future variations.

6.0 POLLUTION INCIDENTS THAT MAY HAVE HAD AN IMPACT ON LAND AND THEIR REMEDIATION

Area	Status
Pollution incidents that my have had an impact on land, and their remediation	To be completed for future variations.
Checklist of supporting information	To be completed for future variations.

7.0 SOIL GAS AND WATER QUALITY MONITORING (WHERE UNDERTAKEN)

Area	Status
Soil gas and water quality monitoring (where undertaken)	To be completed for future variations.
Checklist of supporting information	To be completed for future variations.

Appendix A

RELEVANT HAZARDOUS SUBSTANCES REVIEW

Bespoke Relevant Hazardous Substances (RHS) Review (Stage 1 - 3) for Dartford WEEE Treatment Facility

Operator:	Enva E-Waste England Limited
Site Location:	Former Dartford International Ferry Terminal, Clipper Boulevard, Dartford, Kent, DA2 6QB
Date:	September 2025

This RHS Review (Stage 1 - 3) has been produced as part of an environmental permit application for Enva E-Waste England Ltd in relation to a new Waste Electrical & Electronic Equipment (WEEE) facility in Dartford, Kent. This facility will focus on two recycling streams: one for the recycling of Waste Temperature Exchange Equipment (WTEE), consisting of fridges and freezers, and one for the recycling of small mixed WEEE (SMW). Recycling activities will produce residual fractions that will be stored on site, pending dispatch to alternative waste treatment facilities, as appropriate.

Further details on the above development and activities, including a full breakdown of recycling processes proposed at the WEEE recycling facility, is provided in the main environmental permit application supporting report.

This RHS Review supports the Site Condition Report (SCR) that will also be appended to the main environmental permit application.

Stage 1 - Identify

Name as per SDS	Hazardous?
Nitrogen, under low pressure	No
Ultra Low Sulphur Gasoil, ULSG	Yes
Carter EP 220	No
Mobil Rarus 425	No
Taurus Euro 10W-40	No
Ultramax 46	No

Stage 2 - Review

Substance	Vendor	Classification	Physical State	Solubility	Toxicity	Mobility	Persistence	Soil and Groundwater Pollution Potential	Relevant Substance?
Ultra Low Sulphur Gasoil, ULSG	Watson Fuels	H226: Flammable liquid and vapour H304: May be fatal if swallowed and enters airways H315: Causes skin irritation H332: Harmful if inhaled H350: May cause cancer H373: May cause damage to organs (Bone Marrow, Hematopoietic System, Immune System, Kidney, Liver, Lungs, Skin, Blood) H410: Very toxic to aquatic life with long lasting effects	Liquid	Immiscible in water. Miscible in aromatic solvents.	Very toxic to aquatic life with long lasting effects.	Floats on water. Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day.	Diesel is considered biodegradable. Hydrocarbons may be degraded under aerobic conditions into metabolites that are less toxic and less bioaccumulative.	Large volumes may penetrate soil and could contaminate groundwater.	Yes

Stage 3

Relevant Substance	Amount used annually	Maximum amount stored at the site	Details of existing pollution prevention measures	Pollution Risk?
Ultra Low Sulphur Gasoil, ULSG	73,000 litres	5 m^3	<u>Source:</u> The chemical will be stored on site in a suitable container <u>Pollution Prevention Measures</u> Storage will be within an integrally bunded tank (with integral bunding having a 110% capacity). The storage area will be subject to periodic visual inspection, as part of normal daily housekeeping arrangements to be implemented, to ensure that the containers and associated containment remain in a suitable condition. Trained staff will operate in this area, who will be able to identify leaks and spills as part of daily duties. If any leaks and spills are identified, they will be investigated and dealt with in accordance with procedures held within the EMS. Automatic penstock valves (connected to fire detection systems) and oil interceptor will also be incorporated into the drainage plan, which will provide additional protection measures in the event of a spill or leak. <u>Pathway:</u> Any chemical spill from spill containment is to be routed via an oil interceptor and into a holding tank, along with other surface run-off. Testing of contents of the holding tank can be undertaken, to inform a decision to operate the penstock valve. Impermeable hardstanding concrete surfacing of the site, particularly storage areas, will be in place to prevent contamination of the ground and therefore the environment. Site areas will be supported by a sealed drainage system. <u>Receptors:</u> Groundwater and soil should be well protected by the primary, secondary and tertiary containment.	NO (extremely low risk and no significant possibility of contamination due to the primary and secondary containment provided).

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