# APPLICATION FOR AN ENVIRONMENTAL PERMIT VARIATION UNDER THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016 (AS AMENDED)

## ENVIRONMENTAL RISK ASSESSMENT

albus environmental

## 212 KINGSNORTH INDUSTRIAL ESTATE, HOO, ROCHESTER, KENT.

**ECL Ref: ALBU.01.07/ERA**
**Version: Issue 1**
**September 26**

# TABLE OF CONTENTS


**1. INTRODUCTION** **1**
1.1. Overview 1
**2. IDENTIFICATION OF RECEPTORS** **2**
2.1. Site Settings 2
2.2. Potentially Sensitive Ecological Receptors 2
2.3. Potentially Sensitive Human Receptors 6
2.4. Risk of Flooding 8
**3. IDENTIFICATION OF THE RISKS** **10**
3.1. Amenity Risks 10
3.2. Accident Risks 10
**4. ASSESSMENT OF RISKS** **11**
4.1. Methodology 11
**5. SUMMARY** **22**
5.1. Results of the Assessment 22
5.2. Conclusion 22


# APPENDICES


**APPENDIX I EA HABITATS AND NATURE CONSERVATION SCREENING REPORT**
**APPENDIX II EA NOISE ADVISORY TOOL**


# LIST OF TABLES


**Table 1: Nature Conservation Designations Surrounding the Site** **4**
**Table 2: Nearest Residential Properties to the Facility** **7**
**Table 3: Amenity Risk Assessment** **12**
**Table 4: Accident Risk Assessment** **19**


# LIST OF FIGURES


**Figure 1: Indicative Site Location** **2**
**Figure 2: SPA, Ramsar and SAC Identified within 10km of the InstallationBoundary** **3**
**Figure 3: SSSIs NNRs and LNRs Identified within 2km of the InstallationBoundary** **4**
**Figure 4: Long Term Flood Risk – Rivers and Seas** **8**
**Figure 5: Long Term Flood Risk – Surface Waters** **9**

# ACRONYMS/TERMS USED IN THE TEXT

| | |
|---|---|
| **ADMS** | **Air Dispersion Modelling Study** |
| **Albus** | **Albus Environmental Limited** |
| **CCTV** | **Closed Circuit Television** |
| **DMP** | **Dust Management Plan** |
| **EA** | **Environment Agency** |
| **ECL** | **Environmental Compliance Limited** |
| **EMS** | **Environmental Management System** |
| **EP** | **Environmental Permit** |
| **ERA** | **Environmental Risk Assessment** |
| **FPP** | **Fire Prevention Plan** |
| **HEPA** | **High Efficiency Particulate Air** |
| **LNR** | **Local Nature Reserve** |
| **MAGIC** | **Multi Agency Geographical Information for the Countryside** |
| **NGR** | **National Grid Reference** |
| **NNR** | **National Nature Reserve** |
| **NVZ** | **Nitrate Vulnerable Zone** |
| **OMP** | **Odour Management Plan** |
| **OS** | **Ordnance Survey** |
| **PMP** | **Pest Management Plan** |
| **PPMR** | **Planned Preventative Maintenance Regime** |
| **RAMSAR** | **Ramsar Convention on Wetlands of International Importance** |
| **RDF** | **Refuse Derived Fuel** |
| **SAC** | **Special Area of Conservation** |
| **SPA** | **Special Protection Area** |
| **SSSI** | **Site of Special Scientific Interest** |
| **The Installation** | **Albus Environmental Limited Clinical Waste Treatment Installation** |

# 1. INTRODUCTION

## 1.1. Overview

1.1.1. Environmental Compliance Limited ("ECL") has been commissioned by Albus Environmental Limited ("Albus") to produce an Environmental Risk Assessment ("ERA") TO form part of the Permit variation application for their Clinical Waste Treatment Installation, hereafter referred to as "the Installation" located at 212 Kingsnorth Industrial Estate, Hoo, Rochester, Kent, ME3 9NZ.

1.1.1. As part of the Environmental Permit ("EP") variation application (EPR/JB3604FF/V003), Albus is proposing:

- the inclusion of AR2 repackaging activity – clinical sharps and container recycling treatment plant. This will allow the washing of sharps containers for reuse and the shredding of sharps containers for onward recycling once at end of life;
- inclusion of additional waste codes namely aerosols (16 05 04* and 16 05 05) for bulking and transfer offsite. No treatment is proposed;
- captures the additional waste codes that were permitted under RPS C1 (namely 15 02 02* and 15 02 03) during the covid pandemic and are to be captured as part of a formal Permit variation;
- extension of the EP boundary to include the wider yard area and the extension of the offensive waste building.

1.1.2. This ERA has therefore been prepared to include the environmental risks associated with the above changes proposed as part of the variation application.

1.1.3. This ERA has been undertaken in accordance with the Environment Agency ("EA") online guidance[1] in order to:

- identify potential risks that site operations may present to the environment;
- screen out an significant risks;
- assess potentially significant risks in detail; and
- decide on appropriate control measures.

1.1.4. Accordingly, the assessment has addressed the potential risks relating to the operation of the Installation, namely,

- amenity risks (e.g. point source and fugitive emissions to air, fugitive emissions to water, noise, odour etc); and
- accidents (e.g. fire, spillage, loss of power etc).

[1] EA online guidance – 'Risk assessments for your environmental permit'. Available at https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit , updated December 2025, accessed April 2026

# 2. IDENTIFICATION OF RECEPTORS

## 2.1. Site Settings

2.1.1. The Installation is located centrally within the Kingsnorth Industrial Estate in Rochester, Kent and is centred on the Ordnance Survey ("OS") National Grid Reference ("NGR") TQ 80890 72907.

2.1.2. The Site Location Plan and Site Layout Plan (ALBU.01.07-01 & 02) details the proposed extended EP boundary (outlined in green) in addition to identifying the operational areas of the Installation.

2.1.3. Figure 1 provides the indicative location of the Installation (red outline) within the context of the surrounding environment.

**Figure 1: Indicative Site Location**




2.1.4. The Installation is located within a predominantly rural, former industrial setting with an active gas fuelled power station, Damhead Creek Power station, immediately south of the EP boundary. The large village of Hoo lies approximately 2km to the west of the Installation while the town of Rochester is located approximately 9.5km to the south west.

## 2.2. Potentially Sensitive Ecological Receptors

2.2.1. A review of the area using the Multi-Agency Geographical Information for the Countryside[2] ("MAGIC") online tool was undertaken to identify Special Protection Areas ("SPA"), Ramsar Convention on Wetlands of International Importance ("Ramsar"), and Special Areas of

[2] Department for Environment, Food and Rural Affairs ("DEFRA") MAGIC Online Mapping Tool, available at: https://magic.defra.gov.uk/magicmap.aspx, accessed April 2026

Conservation ("SAC") within 10km of the Installation. Additionally, a review was undertaken to identify ecological sites such as Sites of Special Scientific Interest ("SSSI"), National Nature Reserves ("NNR") and Local Nature Reserves ("LNR") within 2km of the Installation.

2.2.2. The ecological designations identified are provided in Figure 2 and 3 in addition to Table 1 below.

**Figure 2: SPA, Ramsar and SAC Identified within 10km of the Installation Boundary**

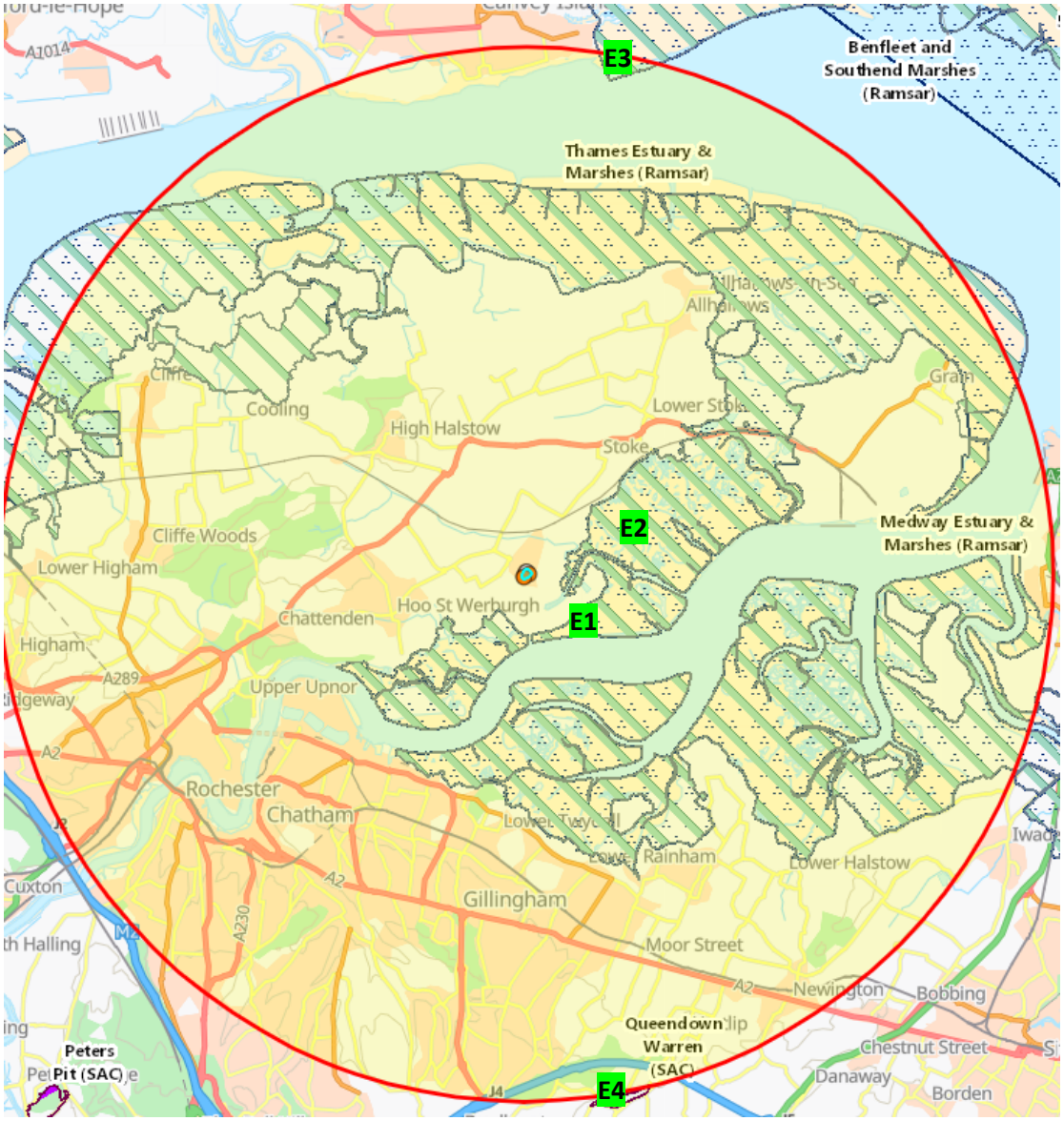


**Figure 3: SSSIs NNRs and LNRs Identified within 2km of the Installation Boundary**

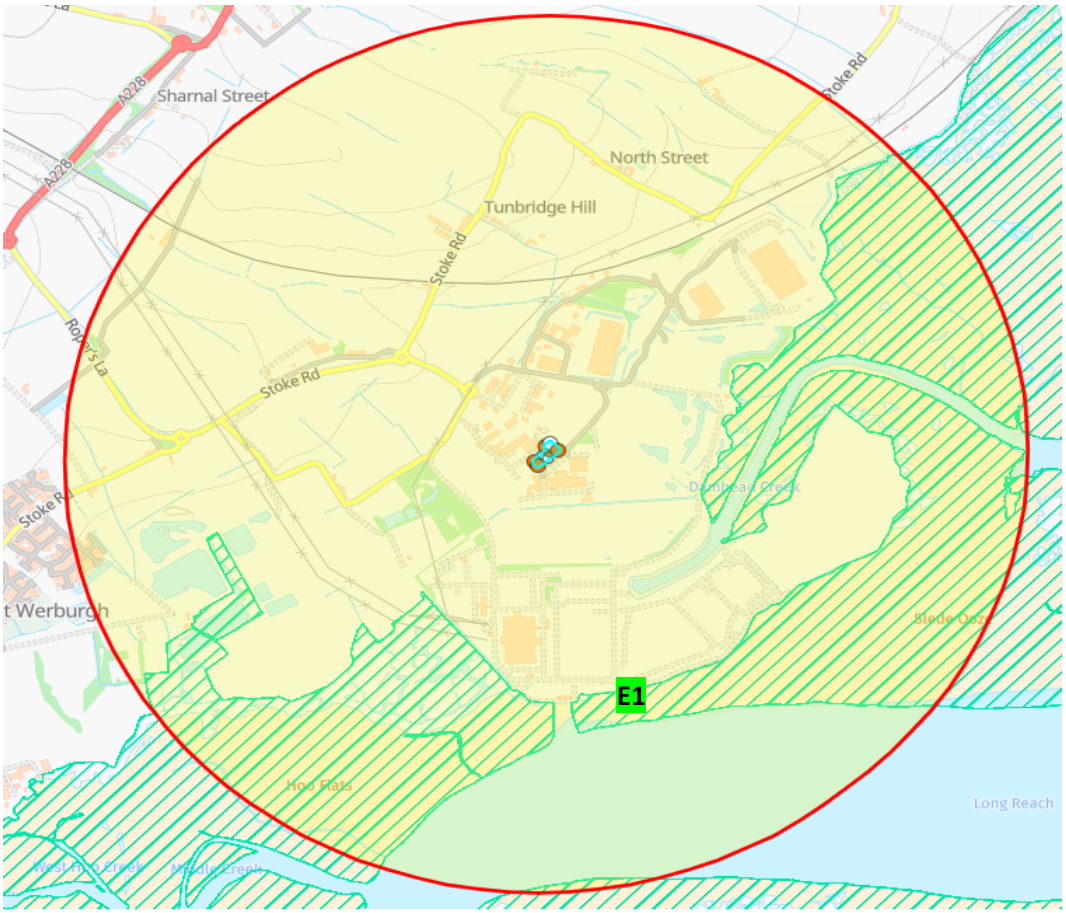
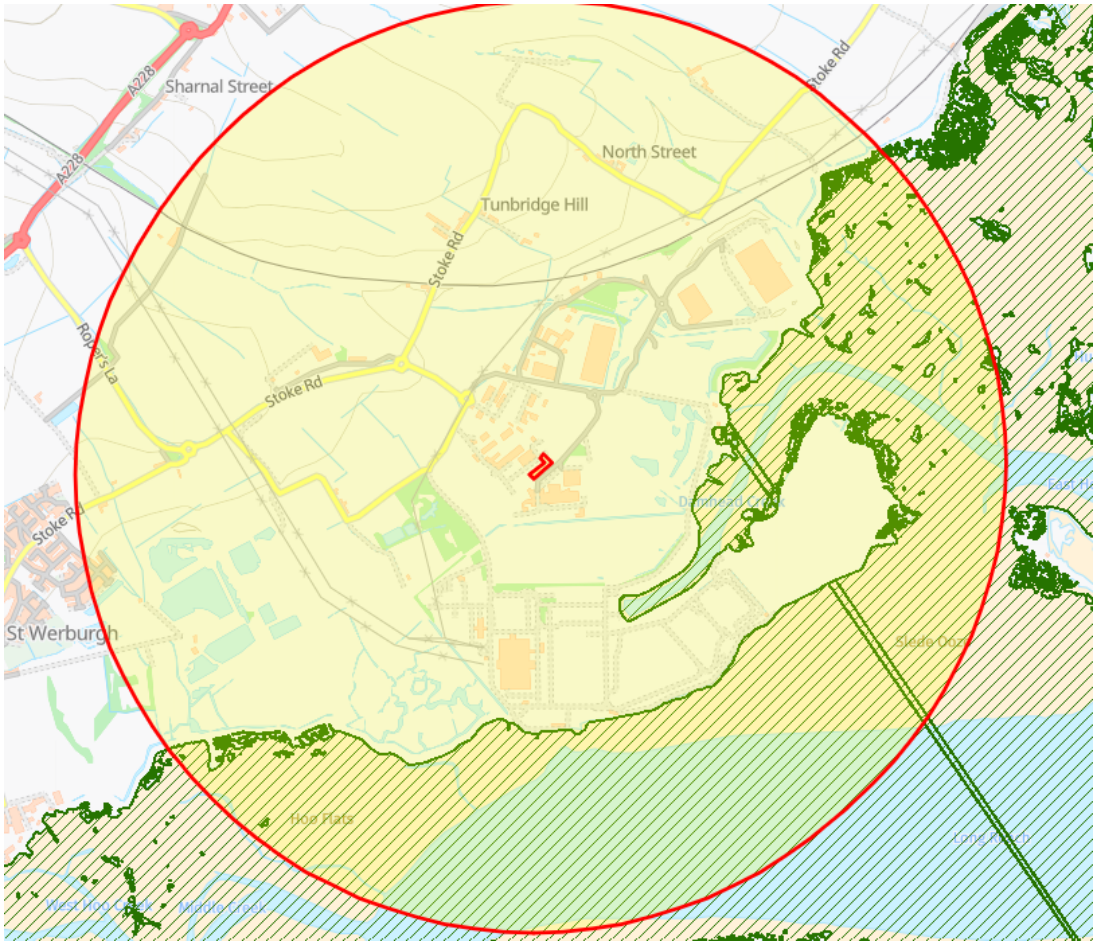



**Table 1: Nature Conservation Designations Surrounding the Installation**

| Ref | Name | Designation(s) | Approximate Distance from the Installation (m) | Direction |
|---|---|---|---|---|
| E1 | Medway Estuary and Marshes | RAMSAR, SPA & SSSI | 0.7 | E & S |
| E2 | Thames Estuary and Marshes | RAMSAR & SPA | 4.1 | N &NE |
| E3 | Benfleet and Southend Marshes | RAMSAR &SPA | 9.5 | N |
| E4 | Queendown Warren | SAC | 9.7 | SW |

2.2.3. According to MAGIC map online tool, there are two Marine Conservation Zones ("MCZ") within 2km of the Installation, namely Medway Estuary – Zone 1 and Medway Estuary – Zone 2 as shown in Figure 4. The closest point being approximately 653m from the Installation boundary.

**Figure 4: MCZ Identified within 2km of the Installation Boundary**




2.2.4. The Installation lies within a Nitrate Vulnerable Zone ("NVZ") where an NVZ is defined by the EA as an area at risk from agricultural nitrate pollution.

2.2.5. In addition to the ecological receptors identified above, other potentially sensitive land uses within 1km of the Installation were considered. A review of the area using the MAGIC online tool indicated that none of the following sensitive land uses are located within a 1km radius of the Installation:

- Areas of Outstanding Natural Beauty;
- Source Protection Zones;
- National Parks;
- Ancient Woodland; and/or
- Scheduled Monuments.

2.2.6. As part of the pre-application advice Nature and Heritage Conservation Screening Report, protected species and protected habitats within the screening distance of 2km of the Installation have been identified. Coastal and Floodplain Grazing Marsh has been identified within 2km of the Installation as shown on the map provided on Page 4 of the screening report which is contained in Appendix I. The nearest being located approximately 49m from the Installation boundary, shown as the black cross in Figure 5.

**Figure 5: Nearest Protected Habitat within 2km of the Installation Boundary**




2.2.7. Additionally, as part of the screening report (see App II), protected species within the 2km screening distance were also identified, namely Allis Shad migratory route, Smelt migratory route and European Water Vole.

## 2.3. Potentially Sensitive Human Receptors

2.3.1. The nearest human receptors to the Installation are staff and visitors to adjacent units within the Kingsnorth Industrial Estate.

2.3.2. Figure 6 provides the location of the nearest human receptors within 1km of the Installation and Table 2 provides the locations and distances of the identified receptors to the Installation boundary.

**Figure 6: Nearest Potentially Sensitive Human Receptors within 1km of the Installation**

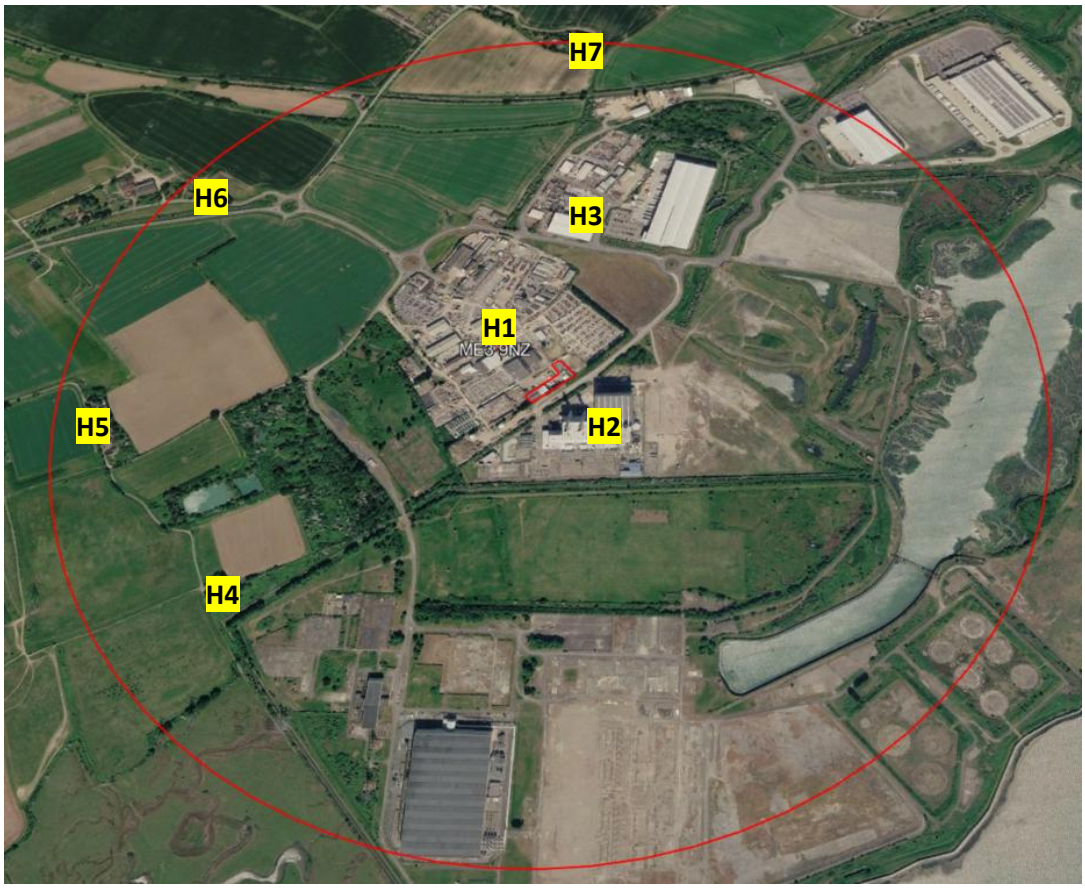



**Table 2: Nearest Residential Properties to the Installation**

| Ref. | Name | Easting Coordinate (X) | Northing Coordinate (Y) | Approximate Distance from the Installation (m) | Direction |
|---|---|---|---|---|---|
| H1 | Business Units within Kingsnorth Industrial Estate | 0 | 0 | Adjacent to Boundary | N, E & W |
| H2 | Damhead Creek Power Station | 580981 | 172802 | 40 | S |
| H3 | London Medway Commercial Park | 580889 | 173328 | 330 | NE |
| H4 | Burnt House Farm | 580289 | 172394 | 695 | SW |
| H5 | Housing on Jacob's Lane | 580004 | 172748 | 502 | W |
| H6 | Beluncle Farm cottages | 580106 | 173385 | 886 | NW |
| H7 | Tunbridge Hill Farm and residential housing | 580514 | 173961 | 930 | N |

## 2.4. Risk of Flooding

2.4.1. The EA's Long Term Flood Risk Map[3]for Rivers and the Sea is provided in Figure 7. It can be observed that the Installation (denoted as the red star) is at low risk of flooding from rivers and the sea which is defined by the EA as having less than 0.1% chance of flooding annually. The yearly chance of flooding between 2026 to 2069 rises to high chance (more than 3.3% chance of flood each year).

**Figure 7: Long Term Flood Risk – Rivers and Seas**




2.4.2. The EA's Long Term Flood Risk Map for surface water is provided in Figure 8. It can be observed that the Installation is at low risk of flooding from surface water which is defined by the EA as having less than 0.1% chance of flooding per year.

[3] EA Long Term Flood Risk Maps, available at: https://flood-warning-information.service.gov.uk/long-term-flood-risk/, accessed August 2021

**Figure 8: Long Term Flood Risk – Surface Waters**



# 3. IDENTIFICATION OF THE RISKS

## 3.1. Amenity Risks

3.1.1. Taking into account the nature of the activities that will be undertaken at the Installation, the main amenity risks identified are as follows:

- point source and fugitive emissions to air;
- fugitive emissions to water;
- odour;
- noise; and
- general amenity risks (litter and pests).

## 3.2. Accident Risks

3.2.1. The main potential accident risks have been identified as:

- fire and potentially contaminated firewater;
- loss of power/system failure; and
- vandalism.

# 4. ASSESSMENT OF RISKS

## 4.1. Methodology

4.1.1. The risk assessments have been undertaken using the following approach for amenity and accident risks:

- identification of hazards associated with the risk that have the potential to cause harm;
- identification of potential receptors i.e. what is at risk (for the purposes of this assessment, typical potential receptors have been identified)?
- pathway i.e. how can the hazard get to the receptor?
- risk management measures employed to reduce the risk to an acceptable level;
- probability of exposure i.e. how likely is this contact?
- consequence i.e. what is the harm that can be cause? and
- assessment of overall risk.

4.1.2. The assessments for the amenity and accident risks identified above are presented in Tables 3 and 4 respectively.

**Table 3: Amenity Risk Assessment**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **Emissions to Air** | | | | | | |
| *Point Source Emissions to Air* | | | | | | |
| Volatile Organic Compounds ("VOCs"), particulates from Point Source Emission Point A5 | Human population in surrounding area (see Section 2.3 of this ERA) | Release to Air – windblown dispersion in atmosphere. | No sharps will be treated at the Installation.<br><br>The plastic sharps containers will be disinfected using specified set detergent quantities.<br><br>The treatment process is fully enclosed and the unit with be fitted with a three-stage abatement; coarse filter, Efficiency Particulate Air ("HEPA") filter and activated carbon filter to capture any potential contaminants prior to being released to atmosphere via the discharge stack.<br><br>Any monitoring required shall be undertaken in accordance with Permit requirements.<br><br>The Air Dispersion Modelling Study ("ADMS") (ALBU.01.07/ADM) has been updated to account for the additional emission point which concluded that the predicted process contributions associated with the operation of Albus' existing emission points (A2, A3 and A4) and proposed emission point A5, will not have a detrimental impact on local air quality or human health.<br>The ADMS has been submitted as part of this application. | Low<br><br>Risk management measures should prevent release from reaching the identified receptors | Air pollution | Not significant if risk management measures are strictly adhered to |

**Table 3: Amenity Risk Assessment (Cont.)**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **Emissions to Air** | | | | | | |
| *Fugitive Emissions to Air* | | | | | | |
| Fugitive VOCs, particulates and from Point Source Emission Point A5 | Human population in surrounding area (see Section 2.3 of this ERA) | Release to Air – windblown dispersion in atmosphere. | Only sharps containers shall be washed and shredded within the treatment plant which is specifically designed for this waste type. Maintenance and replacement of the filters and the treatment unit inspections and maintenance shall be undertaken in accordance with manufacturer recommendations as part of the Planned Preventative Maintenance Regime ("PPMR").<br><br>A leak detection and repair programme shall be in place to promptly identify and mitigate any fugitive emissions from treatment. Alarms and controls shall enable any malfunctions to be identified promptly and the process shall be halted immediately to prevent any fugitive emissions to air. Recommencement of operations shall only occur once it has been confirmed that the process is working correctly and efficiently | Low<br><br>Risk management measures should prevent release from reaching the identified receptors | Air pollution | Not significant if risk management measures are strictly adhered to |
| Dust | Human population in surrounding area (see Section 2.3 of this ERA) | Release to Air – windblown dispersion in atmosphere | All proposed waste types are to be stored internally within the main building within bins/drums. The proposed waste types are not considered dusty.<br><br>Waste storage and processing shall occur in the building. Roller shutter doors are closed during waste treatment operations. Exhaust air from the sharps container treatment plant is treated through a coarse dust filter, HEPA filter and activated carbon filter to remove dust prior to discharge. | Low-Medium<br><br>Risk management measures should prevent release from reaching the identified receptors | Dust nuisance | Not significant if risk management measures are strictly adhered to |

**Table 4: Amenity Risk Assessment**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **Emissions to Air** | | | | | | |
| *Point Source Emissions to Air* | | | | | | |
| Bioaerosol emissions from the process | Human and ecological population in surrounding area (see Section 2.3 & 2.4 of this ERA) | Release to Air – windblown dispersion in atmosphere. | The plastic sharps containers will be disinfected using a sporicidal disinfectant (such as F-10) using specified set detergent quantities applying the recommended dilution factors by the manufacturer which will ensure removal of pathogens/bacteria rather than just a surface cleaning/debris removal process.<br><br>The treatment process is fully enclosed and the unit with be abatement.<br><br>A specialist company Industrial Safety Solutions ("ISS") has been consulted and a validation monitoring protocol shall be prepared and submitted for EA approval. This will be undertaken to validate the biocidal function of the disinfectant and demonstrate that clean plastic is produced as part of the process.<br><br>A bioaerosol assessment will be undertaken at numerous points in the process, such as the wash phases and at A5. | Low<br><br>Risk management measures should prevent release from reaching the identified receptors | Air pollution | Not significant if risk management measures are strictly adhered to |

**Table 3: Amenity Risk Assessment (Cont.)**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **Emissions to Water** | | | | | | |
| *Point Source Emissions to Water* | | | | | | |
| Bin washing effluent resulting from disinfecting sharps containers and the plastic stream | Local Watercourse Network | Via site drainage network | Set quantities of disinfectant shall be used within the process to ensure excess quantities are not consumed (see table above). The washing process comprises a closed water loop where water is recycled until replenishment is needed, therefore, reducing quantities of effluent produced by the washing process. The effluent will be directed to the existing underground storage tank (denoted as Manhole 1 in Permit) and disposed of appropriately by tanker offsite.<br><br>A specialist company Industrial Safety Solutions ("ISS") has been consulted and a validation monitoring protocol shall be prepared and submitted for EA approval. This will be undertaken to validate the biocidal function of the disinfectant and demonstrate that clean plastic is produced as part of the process. A bioaerosol assessment will be undertaken at numerous points in the process, such as the wash phases and at A5. | Low<br><br>Risk management measures should prevent release from reaching the identified receptors | Contamination of effluent treatment plant and subsequent controlled water(s) | Not significant if risk management measures are strictly adhered to |
| *Fugitive Emissions to Water* | | | | | | |
| Bin washing effluent resulting from disinfecting sharps containers and the plastic stream | Local Watercourse Network | Via site drainage network | All waste containers and bins shall be regularly inspected to ensure their continued integrity. All proposed waste types shall be stored internally within the building.<br><br>Spill kits are available in the unlikely event of a spill or loss of containment with site staff trained in the site spill procedure and location of spill kits on site. The site benefits from perimeter kerbing and closed drainage system in the form of underground tanks should spill containment by staff fail. The tanks are routinely inspected to ensure its continued integrity. The effluent would be captured in the underground tank, tested and disposed of at an appropriately licenced facility/installation. | Low<br><br>Risk management measures should prevent release from reaching the identified receptors | Contamination of effluent treatment plant and subsequent controlled water(s) | Not significant if risk management measures are strictly adhered to |

**Table 3: Amenity Risk Assessment (Cont.)**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **Odour** | | | | | | |
| Release of odour | Human population in surrounding area (see Section 2.3 of this ERA) | Release to Air – windblown dispersion in atmosphere. | All incoming waste will be within sealed bins or drums. Albus regularly inspect and clean all waste storage and treatment areas, equipment (including conveyor belts) and containers or carts.<br><br>All waste storage and treatment activities will be undertaken within the confines of the building.<br><br>Sharps containers shall be tipped to empty them of their contents under negative pressure and sharps deposited into a dedicated sealed bin prior to removal offsite. The sharps containers themselves shall be washed within the sealed treatment equipment which uses set quantities of detergent.<br><br>An air extraction system as part of the sharps container treatment plant will maintain negative pressure and will exhaust air passing through a three-step abatement system including a HEPA and carbon filter to remove odour prior to discharge.<br><br>An Odour Management Plan (“OMP”) (ALBU.01.03/OMP) is in place for the Installation detailing operational and control measures in place to manage odour emissions. This has been updated and amended to take account of the potential additional odour sources as part of the variation. Good housekeeping and good working practices are also incorporated into the Operator’s certified Environmental Management System (“EMS”) including a daily site inspection. | Medium<br>Risk management measures should prevent release from reaching the identified receptors | Possible odour nuisance | Not significant if risk management measures are strictly adhered to |

**Table 3: Amenity Risk Assessment (Cont.)**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **Noise** | | | | | | |
| Site plant and equipment related noise | Human population in surrounding area (see Section 2.3 of this ERA) | Release to air | The Noise Advisory Tool has been completed which has determined that a Noise Impact Assessment and Noise Management Plan are not required as part of the application. (See Appendix II).<br><br>The Installation is located within an industrial estate with other industrial units including a power station and warehouses. The treatment activity shall take place internally within the main building. All activities undertaken at the Installation undergo noise assessment with the Health and Safety Executive ("HSE") thresholds maintained.<br><br>All plant and equipment is covered by the Planned Preventative Maintenance Regime ("PPMR") contained within the Operator's EMS to ensure adequate maintenance of any parts of the plant or equipment whose deterioration may give rise to increase in noise.<br><br>Noise inspections will be undertaken daily at the Installation's boundaries to monitor noise emissions. | Low<br><br>The risk management measures should prevent noise reaching the identified receptors | Possible noise nuisance | Not significant if risk management measures are strictly adhered to |
| **General Amenity Risks** | | | | | | |
| Litter releases | Human population in surrounding area (see Section 2.3 of this ERA) | Release to air-windblown dispersion in atmosphere | All incoming waste will be stored within sealed bags or bins with solid, lockable lids. The proposed additional waste codes shall not arrive at the site as loose waste.<br><br>Concrete perimeter walls are in place around the site boundary, this includes the proposed additional permitted area and daily site inspections will be undertaken with any litter found removed and disposed of appropriately. | Low<br><br>The risk management measures should prevent noise reaching the identified receptors | Litter nuisance | Not significant if risk management measures are strictly adhered to |

**Table 3: Amenity Risk Assessment (Cont.)**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **General Amenity Risks (Cont.)** | | | | | | |
| Attraction of pests and subsequent movement off site | Human population in surrounding area (see Section 2.3 of this ERA) | Release to air (flies) and/or via land (vermin) | The storage arrangements described above, in addition to the sharps washing operations, will prevent the attraction of pests.<br><br>The site is regularly monitored for the presence of pests. In the event that any are found, a specialist pest control contractor will be appointed. | Low-Medium<br><br>The risk management measures should prevent noise reaching the identified receptors | Possible adverse health effects and nuisance | Not significant if risk management measures are strictly adhered to |

**Table 5: Accident Risk Assessment**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **Fire** | | | | | | |
| Fire at the Site | Human and ecological sensitive receptors population in surrounding area (see Section 2.2 and 2.3 of this ERA) | Release to air-windblown dispersion in atmosphere | A Fire Prevention Plan ("FPP") is in place for the Installation detailing the measures in place to reduce the likelihood of a fire event in addition to the procedures required to be followed should a fire occur at the Installation. This FPP should be read in conjunction with this ERA. The risk of fire at the Installation is low as the waste materials accepted are not likely to catch fire and will only be stored in minimal quantities for a short length of time. Aerosols will be stored in cages in minimum quantities prior to removal offsite. The absorbents waste shall be stored in sealed bins/drums, 5 tonnes at any one time benefiting from a 6m separation distance. Sharps containers awaiting processing shall be stored in 30 x 770 bins on the mezzanine floor. Minimum quantities of shredded plastic shall be stored on site.<br><br>A fire risk assessment is carried out at the Installation on an annual basis with regular fire drills undertaken to ensure that all staff are aware of the procedures in the event of a fire on site. The fire risk assessment will be updated to take account of the additional waste types stored on site and the proposed new process equipment for the treatment of plastics sharps containers. | Low/Medium<br><br>The risk management measures including those detailed in the FPP should prevent any release from reaching the identified receptors | Combustion gases (smoke) and localised nuisance. | Not significant if risk management measures are strictly adhered to |
| Releases of potentially contaminated firewater | Human and ecological sensitive receptors population in surrounding area (see Section 2.2 and 2.3 of this ERA) | Via site drainage network | Firewater will be contained as the site benefits from impervious concrete hardstanding internally and externally and bund walls. The Installation benefits from a closed drainage system with an interceptor which will be used in the event of a fire to contain potentially contaminated firewater. It should also be noted that the exit point leading to the main gate is positive deterring water from leaving site as the ground level rises. A containment boom would be deployed across the entrance and connect to the concrete bund wall supporting the perimeter security gate. The firewater will be held and tested before removal offsite by specialist contractor to a suitably licensed facility | Low<br><br>The risk management measures should prevent any release from reaching the identified receptors | Contamination of controlled water(s) | Not significant if risk management measures are strictly adhered to |

**Table 6: Accident Risk Assessment**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **Loss of Containment/ Spillages** | | | | | | |
| Spillages of waste | Human and ecological sensitive receptors population in surrounding area (see Section 2.2 and 2.3 of this ERA) | Overland flow / via a site drainage network | Waste is stored in lockable lidded containers / drums within the building.<br><br>Inspections are undertaken to ensure that storage vessels are in good condition and of high integrity.<br><br>Tipping of sharps containers is undertaken within the fully enclosed automated system.<br><br>Spill kits and broad-spectrum disinfectants are available in strategic locations at the Installation and employees are trained in the emergency spill procedures. | Low<br><br>The risk management measures including those detailed in the FPP should prevent any release from reaching the identified receptors | Contamination of controlled water(s) | Not significant if risk management measures are strictly adhered to |

**Table 7: Accident Risk Assessment (Cont.)**

| Hazard | Receptors | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
|---|---|---|---|---|---|---|
| **Loss of Power/System Failure** | | | | | | |
| Waste may not be fully disinfected and washed if loss of power occurs.<br><br>Accumulation of waste materials waiting to be processed creating potential for odour or the presence of pests. | Human population in surrounding area (see Section 2.3 of this ERA) | Release to air-windblown dispersion and/or via land (vermin) | Waste can be re-treated following the restoration of power. A camera monitoring system and alarms and controls will also be in place to identify the status of the treatment process prior to power loss. Appropriate disinfecting procedures will be followed.<br><br>The Installation has pre-determined storage capacity limits which will not be exceeded in the event of a major system failure/loss of power.<br><br>No additional waste will be accepted until all operations recommence.<br><br>The PPMR includes maintenance and inspection of all process equipment to ensure good working order to reduce the risk of complete system failure. Competent personnel will inspect all equipment prior to recommencement of activities and the acceptance of waste. | Low<br><br>The risk management measures should prevent any release from reaching the identified receptors | Air pollution, odour or pest nuisance | Not significant if risk management measures are strictly adhered to |
| **Vandalism** | | | | | | |
| Vandalism or unauthorised access resulting in any of the above | Any of the above | Any of the above | The Installation is completely enclosed by security fencing with lockable entrance gates which are locked out of hours.<br><br>The Installation benefits from Closed Circuit Television ("CCTV") which will be monitored by senior management. | Low<br><br>The risk management measures should prevent any release from reaching the identified receptors | Any of the above | Not significant if risk management measures are strictly adhered to |

# 5. SUMMARY

## 5.1. Results of the Assessment

5.1.1. The results of both the amenity and accident risk assessments (Tables 3 and 4) indicate that none of the risks relating to the proposed variation will be significant as the Installation will be operated and managed in accordance with the EMS, PPMR, management plans and risk management measures detailed above.

5.1.2. The Fire Prevention Plan and Odour Management Plan have been updated as part of the variation application. These management plans should be read in conjunction with this ERA.

## 5.2. Conclusion

5.2.1. The risks in terms of accident and amenity risks associated with the proposed variation can be considered not significant providing all risk management measures are implemented and strictly adhered to.

# APPENDIX I
# EA HABITATS AND NATURE CONSERVATION SCREENING REPORT

# Nature and Heritage Conservation

Screening Report: Bespoke installation

| | |
|---|---|
| Reference | **EPR/JB3604FF/P002** |
| NGR | **TQ 80890 72907** |
| Buffer (m) | **10** |
| Date report produced | **22/04/26** |
| Number of maps enclosed | **1** |

## This nature and heritage conservation report

The nature and heritage conservation sites, protected species and habitats, and other features identified in the table below **must be considered in your application**.

In the further information column, there are links which give more information about the site or feature type and indicate where you are able to self-serve to get the most accurate site boundaries or feature locations.

Most designated site boundaries are available on Magic map. Using Magic map allows you to zoom in and see the site boundary or feature location in detail, Magic map also allows you to measure the distance from these sites and features to your proposed boundary. Help videos are available on Magic map to guide you through.

Where information is not publicly available, or is only available to those with GIS access, we have provided a map at the end of this report.

| Sites and Features within screening distance | Screening distance (km) | Further Information |
|---|---|---|
| Special Areas of Conservation (cSAC or SAC) | 10 | Joint Nature Conservation Committee and Magic map |
| **Queendown Warren** | | |
| Special Protection Area (pSPA or SPA) | 10 | Joint Nature Conservation Committee and Magic map |
| **Medway Estuary & Marshes**<br>**Benfleet and Southend Marshes** | | |

| | | |
|---|---|---|
| Marine Conservation Zone (MCZ)<br><br>**Medway Estuary - Zone 1**<br>**Medway Estuary - Zone 2** | 2 | Joint Nature Conservation Committee and Magic map |
| Ramsar<br><br>**Medway Estuary & Marshes**<br>**Benfleet and Southend Marshes** | 10 | Joint Nature Conservation Committee and Magic map |
| Sites of Special Scientific Interest (SSSI)<br><br>**Medway Estuary & Marshes** | 2 | Natural England and Magic map |

| Protected Species within screening distance | Screening distance (km) | Further Information |
|---|---|---|
| **Allis Shad migratory route**<br>**Smelt migratory route**<br>**European Water Vole** | up to 2 | Natural England<br><br>Appropriate Local Record Centre (LRC)<br><br>Environment Agency. Dial 03708 506 506 to get an email address for your local Fisheries and Biodiversity team |

| Protected Habitats within screening distance | Screening distance (km) | Further Information |
|---|---|---|
| **Coastal and Floodplain Grazing Marsh** (see map below) | up to 2 | Natural England |

Where protected species are present, a licence may be required from Natural England to handle the species or undertake the proposed works.

**The following nature and heritage conservation sites, protected species and habitats, and other features have been checked for, where they are relevant for the permit type requested, but have not been found within screening distance of your site unless included in the list above.**

Special Areas of Conservation (cSAC or SAC), Special Protection Area (pSPA or SPA), Marine Conservation Zone (MCZ), Ramsar, Sites of Special Scientific Interest (SSSI), National Nature Reserve (NNR), Local Nature Reserve (LNR), Local Wildlife Sites (LWS), Ancient Woodland, relevant species and habitats.

**Please note** we have screened this application for features for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or permissions will be required.

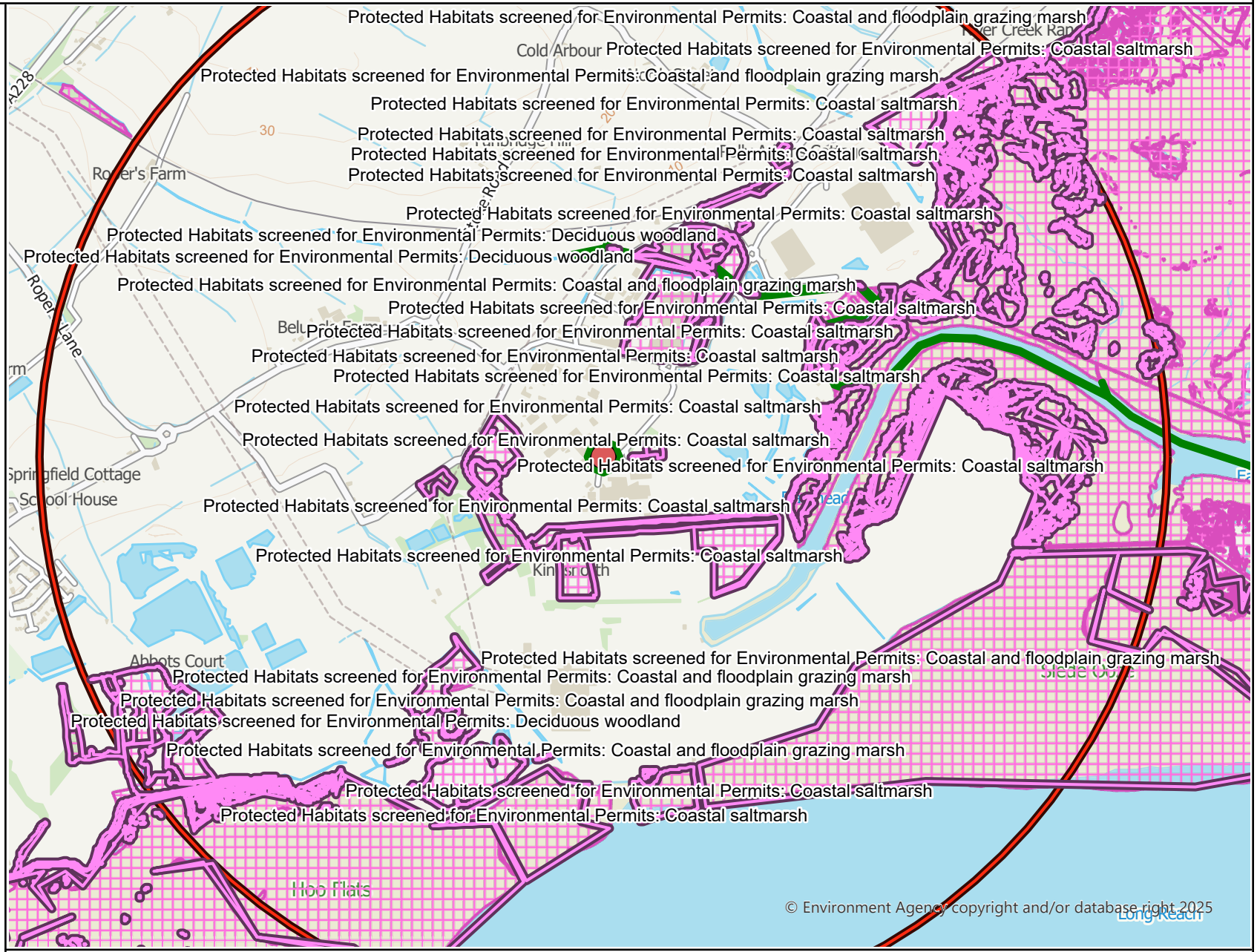
The nature and heritage screening we have conducted as part of this report is subject to change as it is based on data we hold at the time it is generated. We cannot guarantee there will be no changes to our screening data between the date of this report and the submission of the permit application, which could result in the return of an application or requesting further information

# Protected Habitats

Environment Agency

Protected Habitats screened for Environmental Permits

Protected Habitats screened for Environmental Permits




Scale: 1:20,000

0 0.15 0.3 0.45 0.6 0.75 km

N

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# APPENDIX II
# EA NOISE ADVISORY TOOL