Environmental Risk Assessment

Chertsey Green Waste Transfer Station: Environmental Permit Application

Envar Composting Limited

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Basis of Report

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# Introduction

Envar Composting Limited has retained SLR Consulting Limited (SLR) to prepare a bespoke Environmental Permit (EP) application under the Environmental Permitting (England and Wales) Regulations (as amended) 2016, for the Chertsey Green Waste Transfer Station (WTS) located in Chertsey, Surrey, KT16 0EF.

This Environmental Risk Assessment (ERA) is a simple assessment of the risks to the environment and human health from accidents, odour, noise, and fugitive emissions that may be associated with the proposed EP application.

Envar currently operate a green waste bulking and transfer operation at Chertsey Green WTS under a T6 Waste Exemption (*Treating Waste Wood and Waste Plant Matter by Chipping, Shredding, Cutting or Pulverising*). The conditions of the T6 waste exemption are due to change which will reduce the waste storage limits below what is commercially viable for this site. It will also significantly restrict the local authority’s ability to use the site, which is key to serving the green waste transfer requirements for the county. The local authority relies on the ability to transfer green waste in bulk to prevent excessive travel and carbon emissions in smaller vehicles Therefore, Envar wish to apply for a bespoke EP to facilitate the continued green waste bulking and transfer activities on site prior to transfer to suitably permitted composting sites for further treatment. There will be no change to the existing waste types, activities, or storage arrangements at the site as a result of the EP application, and therefore it is not considered that the proposed EP application will increase the risk of the site.

## Methodology

This ERA is an assessment of the risk to the environment and to human health that may be associated with the proposed EP application.

The assessment has been completed in accordance with the Environment Agency (EA) Technical Guidance ‘*Risk Assessments for your Environmental Permit’*, last updated August 2022[[1]](#footnote-1). The aim of the assessment is to identify any significant risks and to demonstrate that the risk of pollution or harm will be acceptable by taking the appropriate measures to manage these risks. The EA Guidance requires all receptors that are near the site and could reasonably be affected by the activities to be identified and considered as part of the assessment.

This ERA uses the following approach for identifying and assessing the risks from the proposed EP application:

**Step 1** Identify and consider risks for your site and the sources of the risks.

**Step 2** Identify the receptors at risk from your site.

**Step 3** Identify the possible pathways from the sources of the risks to the receptors.

**Step 4** Assess risks relevant to your specific activity and check they are acceptable and can be screened out.

**Step 5** State what you will do to control the risks if they are too high.

**Step 6** Submit your risk assessment as part of your EP application.

Section 2.0 of this document is a screening step to identify the receptors at risk as part of this assessment.

Section 3.0 identifies people or parts of the environment that could be harmed (at potentially significant risk) by the activity. The ERA for an EP application requires all receptorsthat are near the site and could reasonably be affected by the activities to be identified and considered as part of the assessment.

Therefore, for the purpose of this report:

* A 1km radius from the site’s EP boundary has been adopted in reviewing RAMSAR, SAC, SPA and SSSIs and sensitive receptors of ecological importance along with features such as sites of cultural and natural heritage; and
* A radius of 500m from the site’s EP boundary has been adopted for all other potentially sensitive local receptors (for example, residential, commercial, industrial, agricultural and surface water receptors)

The potentially sensitive receptors are illustrated on Drawing 003, and described in Table 3-2 below.

Section 4.0 of this document presents the assessment and demonstrates that any risks of pollution or harm will be mitigated to manage the risk.

This ERA should be read in conjunction with the following documents submitted with this EP application:

* Application forms:
  + Parts A, B2, B4, and F1;
* Drawings:
  + Drawing 001 Site Location Plan;
  + Drawing 002 Environmental Permit Boundary and Site Layout;
  + Drawing 003 Environmental Site Setting.
* Non-Technical Summary (NTS);
* Operating Techniques (OT) Document;
* Fire Prevention Plan (FPP);
* Site Condition Report (SCR); and
* Emissions (Dust) Management Plan (DEMP).

# Identifying the Risks

Step 2 is a general screening step to identify the potential risks to the environment from the development. The following is generally considered to require assessment for bespoke operations:

* Amenity and Accidents;
* Site Waste (installations only);
* Global Warming Potential;
* Odour;
* Noise; and
* Point source emissions to air, water and land.

There will be no point source emissions to groundwater, surface water, air or land resulting from the proposed changes to the site, and neither will there be any site waste arising or global warming potential.

Therefore, only ‘Amenity and Accidents’ remains applicable for assessment in this instance, and includes the consideration of odour, noise and vibration, fugitive emissions (including dust, mud, litter and pests) and accidents.

# Site Setting and Receptors

This section identifies the site setting and potentially sensitive receptors in the vicinity of the site.

## Site Setting

The site is situated approximately 1.7km south of Virginia Water and approximately 4.3km west of Chertsey. The site is accessed via Kitsmead Lane which runs to the west of the site, and the M3 lies approximately 90m north. The National Grid Reference (NGR) for the site is SU 99323 66260.

The immediate surrounding land consists of open/agricultural land and woodland, commercial/industrial premises, and residential properties. The closest residential properties to the site are situated approximately 210m north along Trumps Green Road.

The site location is illustrated on Drawing 001, and the EP boundary and site layout is shown on Drawing 002.

The surrounding land uses and local receptors within 500m are identified on Drawing 003, in addition to the cultural and natural heritage within 1km,

A summary of the site’s immediate surrounding land uses is identified in Table 3-1 below.

Table 3‑1 Surrounding Land Uses

|  |  |
| --- | --- |
| **Boundary** | Description |
| North | An area of open ground/woodland, followed by the M3, and the residential area of Trumps Green including Virginia Water Football Club. |
| East | Open/agricultural land, beyond which lies Trumps Farm, Splitz Facilities and further areas of open/agricultural land and woodland. |
| South | Immediately to the south lies an area of open/agricultural land and woodland, and a surface water pond. Beyond this lies a commercial/industrial area including Facilities by ADF, Morris Leslie Plant Hire & Sales, and Severn Trent Green Power West. This is followed by a woodland area, and Chertsey Common. |
| West | Kitsmead Lane and open/agricultural land followed by a commercial/industrial area including James Mansfield Timber, Pilgrim 2 Workshops, Longcross Studios, and 5 Star Roofcare. Beyond this lies Longcross Estate. |

The immediate surrounding land uses are described in further detail below.

### Residential Properties

The closest residential properties to the site are situated approximately 210m north along Trumps Green Road. Individual residential properties are located approximately 290m south, and 460m south.

### Commercial and Industrial Premises

Several commercial/industrial premises are situated within a 500m radius of the site. Facilities by ADF is situated approximately 180m south, along with Morris Leslie Plant Hire & Sales, and Severn Trent Green Power West approximately 260m and 440m south east respectively. A commercial/industrial area including James Mansfield Timber, Pilgrim 2 Workshops, Longcross Studios and 5 Star Roofcare lies approximately 490m west at its closest.

### Areas of Open/Agricultural Land and Woodland

The immediate surrounding land consists of predominantly open/agricultural land and woodland. Areas are situated adjacent to the site’s northern, western, southern and eastern EP boundaries. In addition, Chertsey Common Longcross is situated approximately 500m south of the site.

### Local Transport Network

The site is accessed via Kitsmead Lane which runs approximately 150m to the west of the site.

The M3 is situated approximately 90m north and runs in an approximately south west – north east direction. A railway line is situated approximately 210m north, beyond the M3.

The wider local road network is illustrated on Drawing 003.

### Surface Water Features

A pond is situated approximately 60m south of the site. In addition, a small pond lies approximately 280m south west, and a further pond lies approximately 390m south east.

Surface water features are illustrated on Drawing 003.

## Geology, Hydrogeology and Hydrology

### Geology

A search on the British Geological Survey (BGS) GeoIndex (onshore) Map[[2]](#footnote-2) indicates that the site is underlain by a bedrock of Bagshot Formation – Sand.

There are no records of superficial deposits underlying the site.

### Hydrogeology

The Multi-Agency Information for the Countryside (MAGIC) map[[3]](#footnote-3) indicates that the bedrock underlying the site is designated as a Secondary A Aquifer.

The site lies within an area of ‘medium’ groundwater vulnerability and does not lie within a Source Protection Zone (SPZ).

### Hydrology

There are no surface water features located within the site’s EP boundary. A pond is situated approximately 60m south of the site. Further surface water features are described in Section 3.1.5 above.

### Flooding

The EA’s Flood Map for Planning[[4]](#footnote-4) confirms that the site is situated within Flood Zone 1, meaning the site has a low probability of flooding from rivers and the sea.

## Ecology

### Ancient Woodland

Several areas of ancient woodland are located within a 1km radius of the site, described as follows:

* An area of Ancient and Semi-Natural Woodland lies adjacent to the site’s northern boundary;
* An area of Ancient and Semi-Natural Woodland is located approximately 200m north east;
* An area of Ancient and Semi-Natural Woodland is situated approximately 130m north;
* An area of Ancient and Semi-Natural Woodland lies approximately 430m north east;
* An area of Ancient and Semi-Natural Woodland is situated approximately 470m north; and
* An area of Ancient and Semi-Natural Woodland is located approximately 820m south east.

Searches on the MAGIC website have confirmed that there are none of the following ecological receptors within 1km of the EP boundary:

* Local Nature Reserves;
* National Nature Reserves;
* Areas of Outstanding Natural Beauty;
* National Parks;
* Ramsar Sites;
* Sites of Special Scientific Interest;
* Special Areas of Conservation;
* Special Protection Areas; and
* Biosphere Reserves.

## Cultural and Heritage

### Listed Buildings

Multiple Grade II Listed Buildings lie within a 1km radius of the site described as follows:

* Barrow Hills is situated approximately 550m south west;
* Barrow Hills Garden Terrace lies approximately 570m south west; and
* Warren Farmhouse is located approximately 925m north west.

### Scheduled Monuments

Approximately 670m south west lies the Bowl Barrow 200m West of Barrowhills Scheduled Monument, and approximately1km south lies the Bowl Barrow 80m North-West of Flutters Hill Scheduled Monument.

Searches on the MAGIC map website have confirmed that there are none of the following within 1km of the site:

* Registered Parks and Gardens; and
* Registered Battlefields.

## Receptors

Table 3-2 below, Drawing 003 shows the locations of receptors that are considered to be potentially sensitive and could reasonably be affected by the proposed EP application.

Table 3‑2 Identified Receptors

|  |  |  |  |
| --- | --- | --- | --- |
| **Receptor Name** | **Receptor Type** | **Direction from Site** | **Approximate Distance from Site Boundary at closest point (in metres)** |
| **Identified receptors within 500m of the EP Boundary as shown on Drawing 003 Environmental Site Setting** | | | |
| Open/Agricultural/Woodland | Open/Agricultural/Woodland | North, south, east, west | Adjacent |
| Pond | Surface Water Feature | South | 60m |
| M3 | Local Transport Network | North | 90m |
| Kitsmead Lane | Local Transport Network | West | 150m |
| Facilities by ADF | Commercial/Industrial | South | 180m |
| Trumps Green Road | Residential Properties | North | 210m |
| Railway | Local Transport Network | North | 210m |
| Morris Leslie Plant Hire & Sales | Commercial/Industrial | South east | 260m |
| Pond | Surface Water Feature | South west | 280m |
| Residential Property | Residential Properties | South | 290m |
| Pond | Surface Water Feature | South east | 390m |
| Severn Trent Green Power West | Commercial/Industrial | South east | 440m |
| Residential Property | Residential Properties | South | 460m |
| James Mansfield Timber, Pilgrim 2 Workkshops, Longcross Studios, and 5 Star Roofcare | Commercial/Industrial | West | 490m |
| Chertsey Common Longcross | Open/Agricultural/Woodland | South | 500m |
| **Identified receptors within 1km of the EP Boundary as shown on Drawing 003 Environmental Site Setting** | | | |
| Protected Species (Code 2) | Protected Species | Unknown | Unknown (Possibility of being within 250m) |
| Ancient and Semi-Natural Woodland | Ancient Woodland | North | Adjacent |
| Ancient and Semi-Natural Woodland | Ancient Woodland | North | 130m |
| Ancient and Semi-Natural Woodland | Ancient Woodland | North east | 200m |
| Ancient and Semi-Natural Woodland | Ancient Woodland | North east | 430m |
| Ancient and Semi-Natural Woodland | Ancient Woodland | North | 470m |
| Barrow Hills | Grade II Listed Building | South west | 550m |
| Barrow Hills Garden Terrace | Grade II Listed Building | South west | 570m |
| Ancient and Semi-Natural Woodland | Ancient Woodland | South east | 820m |
| Warren Farmhouse | Grade II Listed Building | North west | North west |

## Windrose

A windrose from the Heathrow Meteorological Station located approximately 12km north-north-east of the site is presented in Figure 3-1 below. In reference to the five year average meteorological data acquired from this recording station, the prevailing winds in the site locale are from the west and south west. As such, the potential impact of emissions is likely to be greater to the east and north-east of the site.

A screen shot of a chart

Description automatically generated**Figure 3‑1  
Windrose for Heathrow Meteorological Station (5 year average 2016 – 2020)**

# Environmental Risk Assessment

The following tables assess the site in terms of potential hazards posed, receptors and pathways along with management and assessment of the identified risks.

As detailed in Section 1.0, the risks associated with the proposed EP application will be assessed as part of this application.

The probability of exposure is the likelihood of the receptors being exposed to the hazard and is defined as low, medium, or high. These terms are qualified as follows:

* Low: exposure is unlikely, barriers in place to mitigate against exposure.
* Medium: exposure is fairly probable, barriers to exposure less controllable.
* High: exposure is probably, direct exposure likely with few barriers.

The methodology outlined in Section 1.1 of this report is the basis on which it is determined whether the proposed EP application will lead to significant impact on the surrounding environment. Where a conclusion of ‘not significant’ has been reached, it is proposed that the mitigation and management measures that will be in place at the site will be sufficient to ensure that there will be no impact at the surrounding environment.

Table 4‑1 Odour Risk Assessment and Management Plan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **What do you do that can harm and what could be harmed** | | | **Managing the Risk** | **Assessing the Risk** | | |
| **Hazard** | **Receptor** | **Pathway** | **Risk management** | **Probability of exposure** | **Consequence** | **What is the overall risk** |
| What has the potential to cause harm? | What is at risk what do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? – Who is responsible for what? | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
| Odours from receipt, handling and storage of green waste. | Sensitive receptors as listed in Table 3-2, including, open/agricultural/woodland, residential properties, commercial/industrial premises, and local transport network.  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.    See Drawing 003. | Air | The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application. From operator experience, current operations on site do not generate significant odours, and therefore it is not anticipated that odour will be generated as a result of the proposed permitted activities.  Nonetheless, odour mitigation and management measures will continue to be implemented on site as described below:   * The site only accepts a limited number of household green waste EWC codes from local households and gardeners, which have a low odour potential; * Strict waste acceptance procedures are adhered to, to ensure only permitted wastes are accepted on site; * A relatively small quantity of green waste is stored on site at any one time (maximum of 500 tonnes (two 250 tonne stockpiles)); * Green waste will continue to be stored on site for a maximum of 5 days. During spring, summer and autumn waste is usually removed from site within 48 hours; * Green waste is delivered to site in enclosed 6-8 tonne RCVs; and * No waste treatment is undertaken, only storage and bulking up prior to transfer to suitably permitted composting sites for further treatment.   The site will continue to be monitored for odours by site personnel throughout the working week. In the event that odours are detected, investigations will be undertaken to determine the cause and appropriate remedial action taken.  The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Low | Odour Nuisance and loss of amenity. | **Not significant** |

Table 4‑2 Noise Risk Assessment and Management Plan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **What do you do that can harm and what could be harmed** | | | **Managing the Risk** | **Assessing the Risk** | | |
| **Hazard** | **Receptor** | **Pathway** | **Risk management** | **Probability of exposure** | **Consequence** | **What is the overall risk** |
| What has the potential to cause harm? | What is at risk what do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? – Who is responsible for what? | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
| Noise from the delivery, receipt, and handling of green waste. | Sensitive receptors as listed in Table 3-2, including, open/agricultural/woodland, residential properties, commercial/industrial premises, and local transport network.  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.  See Drawing 003. | Air | The area surrounding the site consists of predominantly open/agricultural land with a few commercial/industrial premises, and a limited number of potentially noise sensitive receptors within close proximity to the site.  The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application. From operator experience, current operations on site do not generate significant noise emissions, and therefore it is not anticipated that noise emissions will be generated as a result of the proposed permitted activities.  The site’s existing noise mitigation and management measures are considered to be effective and will continue to be implemented on site, described as follows:   * Site operations will continue to be restricted to reasonably sociable hours between 07.00 and 17.00 Monday to Friday. To ensure continuity of service, the site would occasionally be operational on Saturdays, and Sundays, public holidays and over the Christmas and New Year period; * Green waste is delivered to site in enclosed 6-8 tonne RCVs. A relatively minimal annual throughput of up to 35,000 tpa of green waste is accepted on site; * No waste treatment is undertaken, only storage and bulking up prior to transfer to suitably permitted composting sites for further treatment; * All plant will be switched off when not in use; * Plant is selected and operated to minimise noise. All site plant and machinery are operated and maintained in accordance with manufacturer’s specifications; * If horns or alarms on site plant or infrastructure or delivery vehicles are deemed to cause unacceptably high levels of noise, alternative technologies will be explored and implemented; * Speed limits will continue to be implemented for vehicles using the site; and * Site access, and operational areas are maintained and repaired to minimize emissions of noise due to uneven and poor surfacing.   Auditory inspections will continue to be carried out daily and in response to complaints.  A record of the inspection findings and any complaints will be made in the site diary.  The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Low | Noise disturbance and loss of amenity. | **Not significant** |

Table 4‑3 Fugitive Risk Assessment and Management Plan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **What do you do that can harm and what could be harmed** | | | **Managing the Risk** | **Assessing the Risk** | | |
| **Hazard** | **Receptor** | **Pathway** | **Risk management** | **Probability of exposure** | **Consequence** | **What is the overall risk** |
| What has the potential to cause harm? | What is at risk what do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? – Who is responsible for what? | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
| **To Air:** | | | | | | |
| Dust from vehicle movements and operation of plant and machinery.  Dust from receipt, handling and storage of green waste. | Sensitive receptors as listed in Table 3-2, including, open/agricultural/woodland, residential properties, commercial/industrial premises, and local transport network.  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.  See Drawing 003. | Air | The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application. From operator experience, current operations on site do not generate significant emissions of dust, and therefore it is not anticipated that dust emissions will be generated as a result of the proposed permitted activities.  The site will be operated in accordance with a DEMP which is included as part of the EP application. The dust mitigation and management measures detailed within the DEMP are summarised as follows:   * The site only accepts a limited number of household green waste EWC codes from local households and gardeners which have a relatively low dust potential; * Strict waste acceptance procedures are adhered to, to ensure only permitted wastes are accepted on site; * A relatively small quantity of green waste is stored on site at any one time (maximum of 500 tonnes (two 250 tonne stockpiles)); * Green waste will continue to be stored on site for a maximum of 5 days. During spring, summer and autumn waste is typically removed from site within 48 hours; * No waste treatment is undertaken, only storage and bulking up prior to transfer to suitably permitted composting sites for further treatment; * Speed limits will continue to be implemented for vehicles using the site; * Drop heights at which materials are handled are reduced wherever possible; * Site access roads and operational areas are maintained and repaired to minimize emissions of dust due to poor surfacing; * The site operates good housekeeping measures. Roads and operational areas are cleaned as necessary to reduce dust emissions; * 6-8 tonne RCVs delivering green waste to the site are enclosed to minimise emissions of dust; * All incoming waste is offloaded near the storage areas to minimise unnecessary handling and transport distance therefore minimizing the potential for wind-borne dust; and * Drop heights are minimized to prevent emissions of dust.   Daily visual monitoring is carried out by all members of staff throughout their shift with any potential emissions of dust reported to the Site Manager.  The Site Manager will be responsible for implementing risk management measures in accordance with the DEMP (402.065376.00001/DEMP) and the Operating Techniques Document (OT) (402.065376.00001/OT). | Medium | Dust nuisance and harm to human health. | **Not significant** |
| **To Water:** | | | | | | |
| **Runoff from site surfaces** | Surface water and groundwater  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal. | Run off and percolation | The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application. Additional site infrastructure including a fully impermeable surface is not considered to be required for the following reasons:   * There is no change proposed to on site waste activities which are currently regulated under a T6 waste exemption. It is not considered that the proposed EP application will increase the risk of the site, as the exemption does not require a fully impermeable surface; * Waste storage volumes are minimal, with a maximum of 500 tonnes of green waste stored on site at any one time and a maximum annual throughout of 35,000 tpa; * Waste storage times will continue to be short and limited to a maximum of 5 days. During spring, summer and autumn waste is usually removed from site within 48 hours; * The site only accepts household green waste from local households and gardeners with a limited proposed waste list of two low risk EWC codes; and * Strict waste acceptance procedures are adhered to, to ensure only permitted wastes are accepted on site.   The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Medium | Contamination of surrounding land and water (surface water and groundwater) | **Low** |
| **Pests** | | | | | | |
| **Birds, vermin, and pests** | Sensitive receptors as listed in Table 3-2, including, open/agricultural/woodland, residential properties, commercial/industrial premises, and local transport network.  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.  See Drawing 003. | Land and air | The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application. From operator experience, current operations on site do not attract pests, and therefore it is not anticipated that pests will be attracted as a result of the proposed permitted activities.  The site’s existing pest mitigation and management measures are considered to be effective and will continue to be implemented on site, described as follows:   * Timeframes for the storage of green waste will continue to be as low as practically possible, and all waste is stored for a maximum of 5 days. During Spring, Summer, and Autumn green waste will usually be moved off site within a maximum of 48 hours; * The site only accepts a limited number of household green waste EWC codes from local households and gardeners which are unlikely to attract pests; * Strict waste acceptance procedures are adhered to, to ensure only permitted wastes are accepted on site; * A relatively small quantity of green waste is stored on site at any one time (maximum of 500 tonnes), and the site has a minimal maximum annual throughput of 35,000 tpa; * Green waste is delivered to site in enclosed 6-8 tonne RCVs; and * No waste treatment is undertaken, only storage and bulking up prior to transfer to suitably permitted composting sites for further treatment.   The site is inspected by site operatives on a daily basis for signs of pest infestations.  In the event that birds, vermin or insects are identified at the site, a specialist pest control contractor will be employed to undertake remedial measures.  The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Low | Nuisance, potential risk to human health. | **Not Significant** |
| **Mud** | | | | | | |
| **Mud on roads** | Local Road Network  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.  See Drawing 003. | Land – transfer of mud to roads from vehicle wheels. | The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application. From operator experience, current operations on site do not deposit mud, and therefore it is not anticipated that mud will be deposited as a result of the proposed permitted activities.  In addition, there will be no increase to the number of waste deliveries at the site as a result of the EP application.  6-8 tonne RCVs delivering green waste to the site are enclosed.  Areas of surfacing will continue to be maintained free of significant quantities of mud and debris.  Roads are swept and cleaned whenever necessary.  In the event that mud, debris or waste arising from the site is deposited outside of the site, the affected area will be cleaned, and traffic will be isolated from sources of mud and debris within the site.  Daily visual inspection of the site by Site Operatives will identify any problem with mud which will be cleaned up as soon as possible. Where necessary road cleaning equipment will be deployed.  The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Low | Mud on road, road traffic accidents. | **Not significant** |
| **Litter** | | | | | | |
| **Litter from waste** | Sensitive receptors as listed in Table 3-2, including, open/agricultural/woodland, residential properties, commercial/industrial premises, and local transport network.  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.  See Drawing 003. | Air | The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application. From operator experience, current operations on site do not generate litter, and therefore it is not anticipated that litter will be generated as a result of the proposed permitted activities.  The following mitigation and management techniques will continue to be employed at the site to ensure that the risk of the generation of litter is minimized:   * The site only accepts a limited number of household green waste EWC codes from local households and gardeners which do not generate litter; * Strict waste acceptance procedures are adhered to, to ensure only permitted wastes are accepted on site; * A relatively small quantity of green waste is stored on site at any one time (maximum of 500 tonnes (two 250 tonne stockpiles)), and the site has a minimal maximum annual throughput of 35,000 tpa; * Green waste is delivered to site in enclosed 6-8 tonne RCVs; * All vehicles leaving site are inspected to ensure that they are clear of loose waste; and * No waste treatment is undertaken, only storage and bulking up prior to transfer to suitably permitted composting sites for further treatment, limiting the likelihood of litter generation.   The site and its immediate surroundings will continue to be inspected on a daily basis and action will be taken to maintain the area free of significant accumulations of litter and debris.  If any excessive litter material is identified at the facility or on the road, it will be cleared using a mechanical sweeper and/or a litter picker if required.  The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Low | Nuisance | **Not significant** |

Table 4‑4 Accidents Risk Assessment and Management Plan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **What do you do that can harm and what could be harmed** | | | **Managing the Risk** | **Assessing the Risk** | | |
| **Hazard** | **Receptor** | **Pathway** | **Risk management** | **Probability of exposure** | **Consequence** | **What is the overall risk** |
| What has the potential to cause harm? | What is at risk what do I wish to protect? | How can the hazard get to the receptor? | What measures will you take to reduce the risk? – Who is responsible for what? | How likely is this contact? | What is the harm that can be caused? | What is the risk that still remains? The balance of probability and consequence |
| **Spillage and Leakage** | Local land quality, surface water and groundwater  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal. | Runoff and percolation through ground | The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application, and as such existing risk management measures are considered to be appropriate.  Fuel and oil tanks stored on site will be surrounded by a leakage containment bund capable of containing at least 110% of the volume of the largest container within the bund. All vehicles and mobile plant are subject to a programme of planned preventative maintenance in accordance with the manufacturer’s recommendations to prevent oil/fuel leaks from vehicles.  Spill kits are kept on site and in the event of any minor spillages associated with vehicles or plant machinery will be cleaned up immediately using appropriate materials such as sand or absorbent material and afterwards placed in suitable sealed containers.  The site staff undertake daily monitoring for evidence of spillage and leakage.  In the event of a major spillage immediate action will be taken to contain the spillage. The spillage will be cleared immediately and placed in containers for off-site disposal and the EA will be notified.  The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Low | Contamination of land, groundwater, and surface water | **Low** |
| **Fire** | Sensitive receptors as listed in Table 3-2, including, open/agricultural/woodland, residential properties, commercial/industrial premises, and local transport network.  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.  See Drawing 003. |  | The site will operate in accordance with the site’s FPP (402.065376.00001/FPP) which is included as part of this EP application. | Low | Nuisance (smoke and fumes) and harm to human health.  Water contamination (runoff) | **Not significant** |
| **Vandalism/ Security** | Sensitive receptors as listed in Table 3-2, including, open/agricultural/woodland, residential properties, commercial/industrial premises, and local transport network.  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.  See Drawing 003. |  | The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application, and as such existing risk management measures are considered to be appropriate.  The site’s security measures are as follows:   * The site is manned during operational hours by site staff who undertake regular inspections of the site; * The site is surrounded by a security fence, and access gate which is locked outside of operational hours. Plant and offices are locked outside of operational hours; * The site benefits from CCTV coverage.   The site is inspected daily by the operations staff to identify deterioration and damage and the need for any repairs.  The site will continue to be maintained and repaired to ensure its continued integrity. In the event that damage is sustained repairs will be made by the end of the working day. If this is not possible, suitable measures will be taken to prevent any unauthorised access to the site and permanent repairs will be affected as soon as practicable. All inspections, any defects, damage or repairs will be recorded in the Site Diary.  All visitors to the site are required to register in the visitor’s book and sign out again on exit. This minimises the risk of unauthorised visitors being present at the site.  Operating procedures, including regular inspections, ensure continual monitoring of security provision at the site.  The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Low | Theft, nuisance, and harm to human health.  Contamination of land and surface water. | **Not significant** |
| **Unauthorised Waste Acceptance** | Sensitive receptors as listed in Table 3-2, including, open/agricultural/woodland, residential properties, commercial/industrial premises, and local transport network.  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.  See Drawing 003. | Air, Land and Water | The site currently operates under a T6 waste exemption and carries out green waste storage and bulking up operations prior to transfer to suitably permitted composting sites for further treatment. There is no change proposed to waste types, activities, or storage arrangements as a result of the EP application, and as such existing risk management measures are considered to be appropriate.  The site only accepts a limited number of household green waste EWC codes from local households and gardeners. Strict waste acceptance procedures are adhered to, to ensure only permitted wastes are accepted on site. Waste acceptance procedures identify, reject, and/or segregate potentially non-conforming waste.  Only waste authorised by the EP is accepted at the site.  All wastes are subject to inspection and checking against the declaration on the waste transfer note.  In the event that unauthorised waste is delivered to the site, the waste will be segregated and stored in a designated quarantine area prior to export from site.  The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Low | Nuisance, harm to human health, odour nuisance, and water contamination | **Not significant** |
| **Flooding** | Sensitive receptors as listed in Table 3-2, including, open/agricultural/woodland, residential properties, commercial/industrial premises, and local transport network.  The site has operated in the same manner under an exemption for a period of time, therefore the likelihood of a risk to protected species within the immediate vicinity is minimal.  See Drawing 003. | Overland | The EA’s Flood Map for Planning[[5]](#footnote-5) confirms that the site is situated within Flood Zone 1, meaning the site has a low probability of flooding from rivers and the sea.  Evacuation procedures will be implemented in the unlikely event of flooding.  The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques Document (OT) (402.065376.00001/OT). | Low | Inundation of site with flood water impacting the land | **Not significant** |

# Conclusion

This ERA has been undertaken as described by the EA regulatory guidance. The assessment is provided as part of the application for a bespoke EP for the Chertsey Green WTS.

This qualitative risk assessment in addition to the specific management plans, has considered odour, noise, fugitive emissions, dust, releases to water, litter and potential for accidents and incidents. The assessment concludes that with the implementation of the risk management measures described above, and in the separate management plans, potential hazards from the proposed variation are not likely to be significant and no further assessment is required.

1. [Risk assessments for your environmental permit - GOV.UK (www.gov.uk)](https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit), accessed June 2024 [↑](#footnote-ref-1)
2. [BGS maps portal - British Geological Survey](https://www.bgs.ac.uk/information-hub/bgs-maps-portal/), accessed June 2024 [↑](#footnote-ref-2)
3. [Magic Map Application (defra.gov.uk)](https://magic.defra.gov.uk/MagicMap.aspx), accessed June 2024 [↑](#footnote-ref-3)
4. [Flood map for planning - GOV.UK (flood-map-for-planning.service.gov.uk)](https://flood-map-for-planning.service.gov.uk/), accessed June 2024 [↑](#footnote-ref-4)
5. [Flood map for planning - GOV.UK (flood-map-for-planning.service.gov.uk)](https://flood-map-for-planning.service.gov.uk/), accessed June 2024 [↑](#footnote-ref-5)