gardenscape

Environmental Risk Assessment

Newenden Bridge Depot

Station Road

Northiam

East Sussex

TN31 6QA

January 2020

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1. Introduction

1.1 GardenscapeDirect Ltd is applying for a bespoke Environmental Permit to operate a Waste Transfer Station (WTS), being ancillary to the main operations on site, at their yard in Northiam, East Sussex. This risk assessment has been produced to support the permit application;

1.2 Gardenscape manufactures and supplies natural horticultural products such as soils, composts, aggregates and barks to retail and trade customers throughout London and the South East. The Environmental Permit is to cover the ancillary operation of a WTS on the site;

1.3 The site operations covered by the Environmental Permit include the acceptance of waste which is then separated and transported off site either for disposal or recycling;

1.4 The site will process <75,000 tonnes of waste (DIY/construction, green/garden waste, soil and manure) per year. The need for a bespoke permit as opposed to standard rules permit arises from the proximity of sensitive receptors being residential properties within 200m of the WTS;

1.5 The site will be operated in accordance with a written Environmental Management System (EMS) which meets the requirements of the Environment Agency's Guidance (hhtp://www.gov.uk/guidance/develop-a-management-system-environmental-permits);

1.6 All waste acceptance, separation and storage activities will be undertaken in accordance with the EMS to ensure that the environment is protected during all stages of waste storage and handling;

1.7 This is the Environmental Risk Assessment (ERS) for the site. It identifies environmental risks and describes the mitigation in place to prevent or minimise those risks;

1.8 This Assessment has been written in accordance with the Environment Agency's guidance "Risk assessments for your environmental permits";

1.9 Environmental monitoring and record keeping will be undertaken and completed in accordance with the EMS and conditions included in the Environmental Permit when issued. An Environmental Logbook will be kept on site;

2. Sensitive Receptors

2.1 The WTS is located in a yard adjacent to the River Rother which itself is the border between Kent and East Sussex. The river is to the West of the site. To the South of the site is a campsite, café and sinkge residence for Lime Wharf Café / Bodiam Boating Station. To the South West is the A268. The yard is enclosed on 3 sides by a well established tree line;

2.2 Receptors in the vicinity of the WTS are outlined in Table 1 below and shown on Image 1 attached at the end of this document.

Table 1: Receptors in proximity of the WTS

Name of Receptor	Type of Receptor	Approx distance from site
River Rother	Water	40m
Lime Wharf Café/ Bodiam Boating Station/campsite	Commercial	40m+
Bourne Group Offices	Commercial (offices)	100m
Residence at Lime Wharf Café	Residential dwelling	100m
Residential Properties on Lossenham Lane	Residential Dwellings	125m+

3. Risk Assessment

3.1 The potential environmental risks associated with the site have been identified and measures are in place to minimise these risks;

3.2 All identified hazards that could cause harm will be subject to strict preventative or control measures managed in accordance with the sites EMS;

3.3 There is potential for dust and odour release from various point sources across the WTS. These are covered by separate management plans;

3.4 Water discharge activity from the site is covered as part of the bespoke Environmental Permit;

3.5 All emissions from the WTS are "emissions not controlled by emission limits" (ie fugitive emissions);

3.6 The following table identifies the potential environmental risks that may arise from operations at the WTS and considers possible pathways and receptors that may be impacted. It shows how these risks are minimised by preventing the hazard at source or by providing measures to break the pathway and prevent pollution migrating towards receptors.

Data and Information				Judgement				Action	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk Management	Residual Risk
What is at risk?	What is the agent/process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is the contact?	How severe will the consequences be?	What is the overall magnitude of risk?	On what did I base this judgement?	How can I best manage the risk to reduce magnitude?	What is the magnitude of risk after management?
DUST									
Local population	Release of particulate matter (dust)	Harm to human health - respiratory irritation and illness	Air	Medium	Medium	Medium	The movement of waste matter may increase potential for particles to be released into the air however waste types do not include dusts, powders or loose fibres so medium magnitude estimated.	Full details in Dust Management Plan. Material kept outside is in sealed concrete bays, kept moist. Material will not be piled higher than the bay wall. Other materials kept inside away from water or wind exposure. Yard is surrounded on all sides with trees	Low
Local population	Release of particulate matter (dust)	Nuisance - dust on cars, property etc	Air	Medium	Low	Low	The movement of waste matter may increase potential for some particles to be released into the air however waste types do not include dusts, powders or loose fibres so medium magnitude estimated.	Material kept outside is in sealed concrete bays, kept moist. Material will not be piled higher than the bay wall. Other materials kept inside away from water or wind exposure. Yard is surrounded on all sides with trees.	Low
LITTER									
Local population	Waste, litter and mud on local roads	Nuisance, loss of amenity and road traffic accidents	Vehicles entering and leaving site	Medium	Medium	Medium	Local sensitivity to condition of local roads	Waste transported in lorry bodies and kept in sealed bays or inside buildings. Roads swept down immediately if ever a problem does arise.	Low

[redacted]

ODOUR									
Local population	Odour	Nuisance , loss of amenity	Air	Medium	Medium	Medium	Movement (loading / unloading and processing) of waste may result in odour release	Optimal conditions maintained for storage of material including complete containment of organic waste stored outside in sealed concrete bay. Any leachate to run off into bespoke reedbed. Full details in Odour Management Plan	Low
NOISE									
Local population	Noise from machinery	Nuisance , loss of amenity	Air	Medium	Medium	Medium	Local residents sensitive to noise, particularly from loading and unloading of vehicles as well as plant on site	Ongoing staff training. Working hours limited. Site surround by trees that absorb noise. Nearest residential area approx 140m away	Low
PESTS									
Local population	Scavenging animals, scavenging birds and other pests	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity	Air and over land	Low	Medium	Low	Permitted activities unlikely to attract scavenging animals, birds or other pests	Emission of substances not controlled by emissions limits (including those from scavenging animals or birds) shall not cause pollution.	Very low
FLOODING									
Local population and local environment	Flooding of site	Material washed off site may contaminate local environment	Flood waters	Low	Medium	Low	Yard levels drain surface water to soakaway. Material kept in sealed concrete bay so any leachate will run into reedbed, not go to surface water. Material kept is non-hazardous	Sealed bays and reedbed designed to minimise risk of pollution. Ground levels direct drainage towards reed bed and soakaway.	Low

[redacted]

INJURY									
Local population gaining unauthorised access to site	On site hazards. Bays of material and machinery	Bodily injury	Direct physical contact	Medium	Medium	Medium	Waste is non-hazardous. Vehicles are locked and stored safely behind locked gates. CCTV in place. Public access to site during working hours is restricted.	Operations conducted in accordance with a management system. Security measures on site to prevent unauthorised access	Low
FIRE									
Local population and local environment	Arson and/or vandalism causing release of pollutant materials	Respiratory irritation, illness. Pollution of land or water	Air transport of smoke or spillages of contaminate d firewater into surface drains	Low	Low	Low	Material is often moist so not readily combustible. Organic matter that is non-hazardous.	Management system identifies and reduces the risk of pollution including those arising from operations, maintenance, accidents, incidents etc. Fire Prevention Plan in place	Low
Local population and local environment	Accidental fire causing the release of polluting materials to air, waste or land	Respiratory irritation, illness. Pollution of land or water	Air transport of smoke or spillages of contaminate d firewater into surface drains	Low	Low	Low	Material is often moist so not readily combustible. Organic matter that is non-hazardous. No waste is burnt	Fire Prevention Plan in place	Low
Local human population and all surface waters close to and downstream of site	Serious fire	Nuisance, harm to human health, loss of amenity, deterioration of water quality	Air transport then inhalation or deposition. Direct run off of fire water across site to surface water	Low	High	Medium	Waste fires are not common but where they do occur the impact on health and amenity can be significant and lengthy. Contaminated fire water run off can be detrimental to fish and other aquatic life	Fire Prevention Plan in place.	Low
All surface waters close to and downstream of site	Serious fire	Loss of amenity and deterioration of water quality	Direct run off of fire water across site to surface waters	Low	High	Medium	Waste fires are not common but where they do occur the impact on health and amenity can be significant and lengthy	Fire Prevention Plan in place. Surface water drains away from the river to the reedbeds and soakaway.	Low

CONTAMINATION									
All surface waters close to and downstream of site	Leachate, contaminated rainwater run off from waste with high organic content	Oxygen depletion, fish kill etc	Run off from site	Low	Low	Low	Surface water on the site is directed to a bespoke reedbed and/or soakaway, away from watercourse (which is over 10m away from the storage site) All waste on site, including organic waste, is non hazardous therefore a low risk is estimated.	All surface water is directed to a soakaway on site. Organic material will be contained in a sealed bay and all leachate will be directed into a bespoke engineered reedbed that will then drain into the soakaway.	Low
All surface waters close to and downstream of site	Leachate contaminated rainwater run off from waste with high organic content	Chronic effects: deterioration of water quality	Indirect run off via soil layer	Low	Low	Low	Waste types are organic and/or non hazardous so effect, if any, is likely to be temporary and reversible	All processing done on hardstanding and/or in covered building. Run off directed to reedbed and soakaway.	Low
Abstraction of water downstream of facility (for agricultural or potable use)	Leachate contaminated rainwater run off from waste with high organic content	Acute effects: Closure of abstraction intakes	Direct run off from site across surface ground via surface water drains, ditches etc then abstraction	Low	Low	Low	Run off directed away from watercourse and surface water drains.	All processing done on hardstanding and/or in covered building. Run off directed to reedbed and soakaway.	Low

Groundwater	Spillage of leachate, contaminated rainwater run off from waste with high organic content	Contamination of groundwater requiring treatment of water or closure of borehole	Transport through soil / groundwater then extraction at borehole	Low	Low	Low	There is potential for contaminated run off from leachate but on site measures mean that risk estimated as low	None of these activities are carried out within 50 metres of any well, spring or borehole used for the supply of water for human consumption. Leachate is removed through reedbed and soakaway. Site drains towards reedbed and soakaway	Low
Local population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness	Direct contact or ingestion	Low	Low	Low	Unlikely to occur as water course is over 10m from storage / sorting areas, drainage levels on site run away from water course and waste on site is non-hazardous	All water discharge is managed and permitted	Low
PROTECTED									
Protected sites - European sites and SSSI's	Any	Harm to protected site through nutrient enrichment, disturbance etc	Any	Low	Low	Low	Waste operations may cause harm to and deterioration of nature conservation sites	Site is well over 200m away from any Protected sites.	Low

4. Conclusion

4.1 The design and operational measures at the facility will ensure that activities do not present an unacceptable risk to the environment;

4.2 In practice, all identified hazards that could cause harm are subject to preventative measures as a result of the site infrastructure and management systems in place. These include Environmental Management System, Dust Management Plan, Odour Management Plan, Noise Management Plan, Fire Prevention Plan.

Image 1 – Sensitive receptors