Stewartby Waste Transfer Station

Environmental Risk Assessment

FCC Waste Service (UK) Ltd

Report No. 14-K0157-ENV-R-00003

02 November 2023 Revision 02



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Document Control

Document: Environmental Risk Assessment

Project: Stewartby Waste Transfer Station

Client: FCC Waste Service (UK) Ltd

Report Number: 14-K0157-ENV-R-00003

Document Checking:

	Revision/ Review		Authorised				
Revision	Date	Details of Issue	Prepared By	Checked By	Approved By		
00	30 June 2022	Issued to Client	E Greenhalgh	P Roberts	P Roberts		
01	13 September 2022	Issued to EA	E Greenhalgh	P Roberts	P Roberts		
02	02 November 2023	Reissued to EA	E Greenhalgh	K Wright	J Baxter		

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1 Introduction

1.1 Report Objectives

This Environmental Risk Assessment (ERA) has been prepared by ByrneLooby Partners (UK) Limited to support a permit application by FCC Waste Services (UK) Limited (the proposed Operator) for a Waste Transfer Station (WTS) at Stewartby, Bedford (the Site). A planning application is being submitted simultaneously for the development (reference: 22/01285/EIAWM).

Reference has been made to Environment Agency (Agency) web-based guidance¹ to assess the potential risks associated with the proposed activity. The guidance referenced identifies the following step process to risk assessments which can be summarised as:

- Identify risks;
- Identify receptors;
- Identify possible pathways;
- Assess relevant risks; and
- Control risks.

The guidance indicates that the following parameters require assessing:

- Any discharge;
- Accidents;
- Odour;
- Noise and vibration;
- Fugitive emissions (such as dusts, litter, and pests);
- Visible emissions; and
- Release of bioaerosols.

The guidance requires that receptors are considered with regard to the proximity of the site. Table 1 of this report identifies the most likely sensitive receptors adjacent to site and has been compiled using information available through internet-based searches.

¹ Risk assessments for your environmental permit - GOV.UK (www.gov.uk)



1.2 Assessment of Environmental Risk

The Agency guidance requires that everyone applying for a new environmental permit (other than a standard permit) or variation to an existing permit should present information in the form of risk assessment tables, one table for each actual or possible hazard identified. Identification of accident scenarios and their prevention through operational management should also be detailed. Each table should identify the hazard, the process that causes the hazard, the potential receptors and the pathway from the hazard to those receptors. In addition, the tables should also include the preventative risk management practices to be employed along with an assessment of the mitigated risk.



2 Scope of the Assessment

2.1 Site Details and Proposed Operations

The site has historically been used as railway sidings and the eastern area of the site for clay extraction for nearby brickworks. To the north of the site is Stewartby Landfill (permit reference BV4576IK) with Leachate Treatment Plant to the south (permit reference BV0953IM). The Site is accessed from Green Lane via the entrance to Stewartby Landfill towards the western end of the site.

The site has historically been used as railway sidings and the eastern area of the site for clay extraction for nearby brickworks which was restored by landfilling. The existing railway infrastructure will be retained and continue to be used for the import by rail of up to 750,000 tonnes per annum of non-hazardous excavation, construction and demolition waste, for onward transfer via road in Heavy Goods Vehicles (HGVs) to separately permitted waste activities. The Site has three existing railway sidings, an offload area and internal site access roads. In order to optimise the operations of the Site, the Operator proposes to install a replacement weighbridge and office at the entrance to the Site and a wheel wash to the north of the Sidings. The Site Layout is shown on drawing referenced: K0157/1/002. The offload area will be a concrete pad with sealed drainage. Storage of material would not typically be required, however in the unlikely event that materials cannot be transferred immediately to the HGVs, the offloading area may be used for temporary storage. No treatment activities are proposed.

2.2 Proposed Operations

Trains containing the waste for onward transfer will pull into the sidings for Lines 1 and 2. Line 3 will not be used for offloading and would only be used to hold the trains and HGVs temporarily in the event that Lines 1 and 2 are occupied.

The material will be removed from the train carriages using a mobile grab, the operator of which will be positioned to give a clear view of the inside of the carriage in the awaiting HGV. Under normal operating conditions the waste will be transferred directly into the HGVs. The grab and awaiting HGVs will progress gradually along the length of the stationary train until it had been emptied.

Stockpiling of material would not typically be required, however an area of impermeable surfacing with sealed drainage has been designated to allow for temporary stockpiling of material in the unlikely event there are no HGVs available to directly receive the waste. This material will be excavated from the storage area as soon as practicably possible. Any spillages of dry soil or waste material during the transfer process between train and HGV will be removed as soon as practicably possible.

HGVs will access the Site off Green Lane to the south of the Site. They will weigh in at the site weighbridge before using the internal site access road to access the Sidings. HGVs will then be loaded as described above. Once full, the HGVs will be sheeted and travel around the Sidings,



passing through a wheel wash and weighing off on the weighbridge before exiting onto Green Lane.

2.3 Potential Hazards

2.3.1 Discharges to Surface Water or Groundwater

There are no point source emissions to surface water or groundwater. The offloading area will consist of a concrete pad with sealed drainage which will collect in a sump and will either be tankered off-site or treated at the adjacent Leachate Treatment Plant.

The Operator proposes to accept non-hazardous excavation, construction and demolition waste of the types listed in Table 1 of the Permit Application Report (referenced: 14-K0157-ENV-R-00001) which are based on Standard Rules (SR) 2009 No 5: inert and excavation waste transfer station below 250kte, although the waste to be accepted at the WTS will not be limited to inert waste only. The Operator also proposes to import that has undergone mechanical treatment and would be classified under EWC Code 19 12 12. All of the waste types will have a low pollution potential and will normally be transferred directly from trains to HGVs. In the unlikely event that there is insufficient HGVs immediately available to receive the waste, material may be temporarily deposited on a sealed concrete surface with sealed drainage pending collection.

The Site's operational and waste acceptance procedures are provided in the accompanying Technical Standards report (referenced: 14-K0157-ENV-R005). A Flood Risk Assessment is also attached to the Technical Standards and confirms the proposed development would be operated with minimal risk from flooding, would not increase flood risk elsewhere and is compliant with the requirements of the National Planning Policy Framework Consequently, discharges to surface water or groundwater are not considered further in this report.

2.3.2 Odour

Due to the low or negligible organic content associated with the materials proposed for acceptance at the WTS it is considered very unlikely this material will represent a source of odour. It is also expected to present a negligible risk in terms of leachate generation. Consequently, odour is not considered further in this report.

2.3.3 Noise and Vibration

The Site is in an industrial area with a long history of clay extraction and landfilling. To the north, west and south is Stewartby Landfill. Stewartby Landfill's Leachate Treatment Plant and Gas Compound are located to the south. To the southwest is Veolia Hazardous Waste Transfer Station and to the east is a railway line and sewerage works / commercial premises. These activities are likely to generate noise and vibration emissions of their own. Therefore, the noise associated with the WTS is expected to be significantly less than that associated with surrounding activities.



Nevertheless, there is still potential for noise and vibration to be generated from the WTS. This will be generated primarily by the movement and operations of Site plant and railway carriages, and by the loading and unloading of waste during operational hours. The following noise mitigation measures will be implemented at the Site:

- Plant will be checked at the recommended service intervals and maintained in accordance with the manufacturer's instructions;
- Plant and vehicles will be switched off when not in use;
- Site roads will be maintained and subject to an onsite speed limit;
- Drop heights of materials will be minimised;
- Site personnel will be instructed to carry out all routine operations in a manner that does not cause unnecessary levels of noise;
- Planning will restrict site operational hours; and,
- An acoustic barrier will be constructed along the southern boundary of the Site should residential properties be constructed at the derelict brickworks.

A Noise Assessment has been submitted with the planning application and is attached as Appendix B of the accompanying Technical Standards report (referenced: 14-K0157-ENV-R-00005) and includes further details on the proposed acoustic barrier.

Should complaints be received concerning noise or noise is identified by site staff above the normal expected levels then the procedures outlined in the Site's Environmental Management System (EMS) will be followed. All complaints and remedial action will be recorded.

The risk associated with potential noise and vibration emissions and the management protocols used to control them are detailed in Table 2.

2.3.4 Fugitive Emissions / Visible Emissions

There is potential for dust emissions to arise during the deposit and transfer of potentially dry or dusty wastes, and vehicle movements on unpaved or dusty roads. Fugitive dust may present a dust nuisance to surrounding human receptors or cause an adverse impact if excessive deposits land on sensitive habitats and smother sensitive plant life or surface water receptors as accumulated sediment.

The primary control for dust emission minimisation will be the restriction on the acceptance of dusty wastes for transfer. Site staff will enforce strict waste acceptance protocols to manage the transfer or deposit of potentially dusty wastes. The following additional controls will be in place onsite:

 All vehicles leaving site will use the proposed wheel wash to remove excess mud or debris which may dry and give rise to dust and debris on public highways. The wheel



wash will be subject to regular inspections and maintenance to ensure appropriate functionality;

- Internal roads are regularly maintained and may readily be cleaned with a bowser or road sweeper;
- A site speed limit is set to reduce the risk of excessive dust disturbance;
- All vehicles transporting materials to and from Site will be sheeted;
- Drop heights of materials will be minimised;
- Some provision of trees may be provided on the site boundary and will act as a barrier to dust;
- All site personnel will be trained as to the potential sources and effective mitigation of dust;
- Good housekeeping practices will be implemented to make sure the site is clear of dust, mud, and other debris;
- Regular visual inspections will be conducted of the operation by the site personnel, as
 deemed necessary and especially during windy conditions to ensure that any dust
 sources are identified and dealt with promptly; and,
- The operator will ensure appropriate controls are in place during windy or dry
 conditions to prevent dust or particulates spreading beyond the site boundary,
 comprising the watering of vehicle circulation areas and spraying material with low
 moisture content with water prior to handling. Options also include restricting or
 suspending activities most likely to generate dust.

A Dust Management Plan (DMP) (referenced: 14-K0157-ENV-R-00005) has been submitted with this application and includes further details on the control in place.

In the unlikely event that unacceptable dust emissions arise from the Site, or a complaint is received the procedures in the Site's EMS will be followed. The risks from fugitive emissions of dust and proposed management measures are discussed further in Table 3.

2.3.5 Mud

Mud accumulated from unpaved roads or from the WTS can be trailed onto the highway by vehicles leaving the site.

Access to the Site is gained via a private access road which connects with the public highway at a T-junction on Green Lane approximately 565m to the southwest. Green Lane is the primary receptor but the significant distant to be travelled and the use of the proposed wheelwash will minimise entrained mud. In addition, as the proposed material is to be transferred directly from the train to HGVs it is unlikely mud will build on surfaces and any spillages identified will be cleaned up immediately. The access road is also used to access Stewartby Landfill and it is



understood there has historically been no issues associated with mud being tracked out onto public roads.

All vehicles leaving site will use the proposed wheel wash to remove excess mud or debris which may dry and give rise to mud or dust on public highways. Vehicles may be required to repeat their use of the wheel wash, if mud is likely to be a problem.

Site staff will be instructed to increase inspections if necessary (e.g. in wet conditions) to ensure that any mud being tracked onto the public highway can be rapidly identified and remedial action is taken as soon as is practicable. In the event that mud emissions arise from the site, the procedures outlined in the Site's EMS will be followed.

The risks from fugitive emissions of mud and proposed management measures are discussed further in Table 4.

2.3.6 **Litter**

Waste Acceptance Protocols will restrict the waste types to be brough to site. The proposed wastes are very unlikely to contain materials which could present a risk of wind-blown litter and will not be considered further by this assessment.

2.3.7 Pests and Vermin

Putrescible waste may attract pests and scavengers and also provide a habitat for the breeding or loading of pests and vermin. As the materials to be accepted are unlikely to contain anything to attract pests or vermin, the risk associated with the Site is considered to be negligible and will not be considered further by this assessment.

2.3.8 Climate Change

The Site is required to complete a Climate Change Risk Assessment as the screening score in the Part B2 Application Form exceeded 5. The risk assessment is attached as Appendix B.

2.4 Accidents

There is potential for accidents to occur during the operation of the WTS which may have a detrimental environmental impact. This can include spillages of fuels or other polluting liquids due to mechanical breakdown; fires causing damage to containment measures or generating contaminated liquid; or, deliberate vandalism resulting in pollution similar to the aforementioned. The risks of pollution occurring from accidents and the proposed management measures are discussed further in Table 5.



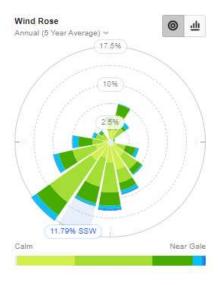
2.5 Potential Hazard Pathways

When identifying the receptors, the closest and most sensitive (if different from the closest) have been considered in each direction from the hazard and the mechanism of transport to each sensitive receptor (e.g. proximity to highway, access/egress points for mud and wind direction for airborne dust).

2.5.1 Meteorological Conditions

Weather and wind statistics are taken from Elstow Weather Station² located 4.7 km northeast of the Site boundary. The windrose shows that the dominant wind direction is from the southwest and blowing towards the northeast (Figure 2.1).

Figure 2.1 - Wind Rose, Elstow



2.5.2 Probability of Exposure

The probability of exposure is determined by the distance of the receptor to the site and the likelihood of the hazard reach the receptor i.e. frequency of prevailing wind in that direction. The probability of exposure is irrespective of the type of hazard presented.

2.6 Hazard Receptors

A review of the sensitive receptors within 500m is listed in Table 1 below. The location of each sensitive receptor is indicated in drawing referenced K0157/1/003: Sensitive Receptors Plan. The site is located in a predominantly industrial setting with neighbouring land use comprising a recycling centre, sewerage works, landfills, and derelict brickworks. The closest receptor to the site is the railway line, located <10 m at its closest point running along the eastern boundary of the site. An unnamed stream / river is located approximately 10 m to the north and south west of the

² Elstow Wind Forecast, Bedfordshire MK42 9 - WillyWeather



site at its closest point. The closest residential receptor is properties off Broadmead Road located approximately 360 m to the east. The derelict brickworks have been recently consented for the construction of a residential development with green space. This future development has been included in the ERA for completeness. However, there is no detailed layout approved. Indicative layouts show public open space, amenity and habitat land will be adjacent to the sidings and the residential properties located approximately 40m to the south and southeast of the Site.

Table 1 – Potential Sensitive Receptors

No.	Receptor Description	Category	Distance (m) from Site	Direction from Site	Frequency of prevailing Wind direction (%)
1	Veolia Hazardous Waste Transfer Station	Industrial / Commercial	<10	Е	6.8
2	Kimberley Sixth Form College	School	110	E	6.8
3	College Pond	Waterbody	175	E	6.8
4	Green Lane	Highway	<10	SW	4.3
5	Railway Line	Railway	<10	E	6.8
6	Stewartby Brickworks	Derelict / Residential	40	SE	2.5
7	Broadmead Road	Highway	325	E	6.8
8	Properties off Broadmead Road	Residential	350	E-SE	6.8-2.5
9	Sewage Works / Commercial Premises	Industrial / Commercial	185	E	6.8
10	Broadmead Farm	Residential / Agricultural	340	NE	17.2
11	Elstow Brook	Watercourse	<10	N	12.3
12	Public Footpath	Footpath	70	E	6.8
13	Deciduous Woodland	Priority Habitat	<10 - 500	N-S	0 - 17.2
14	European Eel Migratory Route	Protected Species	340	N	12.3
15	Copart UK	Industrial / Commercial	500	NW	7.3
16	Stewartby Lake	Waterbody / CWS	50	SW	4.3
17	Coronation Pit	CWS	600	E	6.8
18	Rookery Clay Pit	CWS	970	S	4.5
19	Great Crested Newts	Code 2 Protected Species	370	E	6.8

2.6.1 Conservation and Heritage Screen

Basic preapplication advice and a 'Conservation & Heritage Screen' (referenced: EPR/LB3102MX/A001, dated 14/02/2022 and 25/10/2023) were provided by the Environment Agency. A copy of the Screens are provided at Appendix C. The Screens identify the European Eel and Code 2 protected species within 500 m of the Site and protected habitats and deciduous woodland within 50 m of the Site. All have been included in Table 1 above.

No European Sites, Ramsar Sites, Sites of Special Scientific Interest (SSSI), National Nature Reserve, Local Nature Reserves, Local Wildlife Site, Ancient Woodland or Scheduled Ancient Monuments were identified. During correspondences with the Environment Agency the following County Wildlife Site (CWS) were identify Stewartby Lake CWS, Coronation Pit CWS, and Rookery Clay Pit CWS. These have also been included in Table 1 for completeness even though Coronation Pit CWS and Rookery Clay Pit CWS are outside the screening distance of 500m.



The site is not located within a Source Protection Zone (SPZ) 1 or 2. There are no other boreholes, wells or springs within 250 m of the site that are used for the supply of human consumption. An unnamed stream / river flows from south to north along the western part of the Site. European Eels have been identified approximately 400m along the stream / river and are unlikely to be impacted by the proposed activity due to the distance and lack of direct discharge. The site is not within an Air Quality Management Areas (AQMA) for PM10s.

A Site Condition Report (referenced: 14-K0157-ENV-R-00002) has been submitted with this application and identified that brickworks extended into the eastern site area and the site investigations identified made ground across the Site.

2.6.2 Protected and Notable Species

An Ecological Assessment Report (AXISL-043-1615) was prepared by Avian Ecology for the planning application and the findings are summarised below along with control measures to be implemented.

It is considered that no birds listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are likely to nest in habitats immediately surrounding the site. It is recommended that construction, and any associated vegetation removal take place outside of the bird breeding season. In the event of a nest of a schedule 1 species is found temporary mitigation measures will be implemented. The Site layout has been designed to limit impact to hedgerows and trees. Whilst some level of displacement may occur, the impacts of habitat loss are considered to be negligible. The local bird assemblages are unlikely to be adversely impacted by the proposed development.

No trees or urban features surveyed were considered to have bat roost potential, however, neighbouring woodland and hedgerow trees may, and these will be largely retained and effects on these features would be restricted to minor temporary disturbances during construction.

The assessment found no evidence of badger presence and the minimal construction activities will not result in disturbance or destruction of any badger sett or obstructed access to setts.

The assessment found no evidence of otters or water voles and the neighbouring ditches will not be directly affected by the proposed development and the adoption of pollution prevention measures will minimise the risk of indirect effects from pollution and site runoff during construction. In order to avoid impacts to the species an adequate buffer zone of at least 5m will be left between the impact areas and the top of the watercourse banks/ditch banks. With such measures in place to protect neighbouring watercourses, otters and water voles are considered to not be negatively impacted by any works associated with the proposed development.

The assessment identified Great Crested Newts (GCN) present in the wider area. It is also considered that other amphibians; most notably common toad may potentially utilise pond habitats and terrestrial scrub /woodland habitats within and adjacent to the Site. The majority of the Site offers negligible terrestrial habitat (being hardstanding) for amphibian and reptile species; however, boundary habitats consisting of ponds, scrub, hedgerows, ditches, field margins and woodland do provide suitable habitat for breeding, foraging, shelter and refuge. As GCN have been

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recorded in the wider area, Reasonable Avoidance Measures (RAMs) will be implemented as a precautionary measure. If the proposed development is consented and the mitigation (RAMs) implemented, the favourable conservation status of amphibian and reptile species potentially present will be maintained. The RAMS are outlined in an Amphibian Method Statement (AxisL-043-1615) prepared by Avian Ecology for the planning application and attached as Appendix D.

The Site and surrounding area may potentially support hedgehog; however, this species is not considered to be a significant constraint in terms of proposed development.

No species of invasive non-native plant species listed under Schedule 9 of The Wildlife & Countryside Act 1981 (as amended) or the Invasive Alien Species (Enforcement and Permitting) Order 2019 were recorded on-Site during the assessment.



3 Risk Assessments and Accident Management Plans

3.1 Risk Assessments

The site-specific risk assessments completed for Noise, Dust and Mud are detailed in Tables 2 to 4 below. Where there is an inter-relationship between the specific risk assessment and meteorological conditions, this has been identified. The pathway is determined by the location of the receptor relative to the site, the distance from the boundary (m) and the frequency (likelihood) the prevailing wind will blow in the direction of the receptor (%) as determined by historical wind rose data for Elstow Weather Station located 4.7 km northeast of the Site boundary.

The Mitigated Risk is the residual risk presented by the hazard after control measures have been implemented. This is the most realistic representation of the risk as effective controls will be maintained under the requirements of the environmental permit, planning consent and management procedures set out in the Operator's EMS.

3.2 Environmental Accidents

The Agency guidance requires the completion of an Accident Risk Assessment Management Plan. This should assess potential hazards associated with the proposed activity not described in the sections above.

An accident management plan is detailed in Table 5.



Table 2 – Noise and Vibration Risk Assessment and Management Plan

			Receptor						
Hazard / Pathway	ID No	Distance (m)	Direction	Freq. Downwind (%)	Probability of exposure	Unmitigated Consequence	Initial Risk	Risk Management	Residual Risk
	1	<10	E	6.8	High- close proximity to Site	Medium - noise annoyance to workers	Medium		
	2	110	E	6.8	High- close proximity to Site	High – noise annoyance to students	High	WTS unlikely to generate noise in excess of	
	3	175	E	6.8	Medium – proximity to Site	Low - not sensitive to noise (waterbody)	Low	surrounding industrial / commercial activities and railway line.	
	4	<10	SW	4.3	High– close proximity to Site	Low – transient noise annoyance	Medium		
	5	<10	E	6.8	High – close proximity to Site	Low – transient noise annoyance	Medium	On site speed limits will be enforced and internal site roads will be maintained.	
	6	40	SE	2.5	High– close proximity to Site	Low - derelict site but potential noise annoyance to future residents	Medium	Appropriate maintenance of site vehicles in accordance with the manufacturers or	
Noise	7	325	E	6.8	Low – distant to Site	Low – transient noise annoyance	Low	supplier's instructions.	
through air and	8	350	E-SE	6.8-2.5	Low – distant to Site	High – noise annoyance to residents	Medium	Where practicable, engines to be switched off	
vibration through	9	185	E	6.8	Medium – proximity to Site	Medium - noise annoyance to workers	Medium	when not in use.	
ground	10	340	NE	17.2	Low – distant to Site	High – noise annoyance to residents	Medium	Site operations will be restricted by planning. An acoustic barrier will be constructed	Low
from: vehicle movements	11	<10	N	12.3	High – close proximity to Site	Low - not sensitive to noise (watercourse)	Low	should the residential development be constructed at the derelict brickworks.	
and waste	12	70	E	6.8	High- close proximity to Site	Medium – transient noise annoyance	Medium	Deposit of material will not be undertaken	
transfer	13	<10 - 500	N-S	0 - 17.2	High – close proximity to Site	Medium – potential noise disturbance	Medium	from height to reduce noise / vibration.	
	14	340	N	12.3	Low – distant to Site	Medium – potential noise disturbance	Medium	Site personnel will be instructed to carry out all routine operations in a manner that does	
	15	500	NW	7.3	Low – distant to Site	Medium - noise annoyance to workers	Medium	not cause unnecessary levels of noise	
	16	50	SW	4.3	High- close proximity to Site	Low - not sensitive to noise (waterbody)	Low	All events or complaints received associated with noise / vibration will be dealt with in	
	17	600	E	6.8	Low – distant to Site	Medium – potential noise disturbance	Medium	accordance with	
	18	970	S	4.5	Low – distant to Site	Medium – potential noise disturbance	Medium	the Sites EMS.	
	19	370	E	6.8	Low – distant to Site	Medium – potential noise disturbance	Medium		



Table 3 – Fugitive Dust Emissions Risk Assessment and Management Plan

			Receptor						
Hazard / Pathway	ID No	Distance (m)	Direction	Freq. Downwind (%)	Probability of exposure	Unmitigated Consequence	Initial Risk	Risk Management	Residual Risk
	1	<10	E	6.8	High – close proximity to Site, infrequently downwind				
	2	110	E	6.8	Medium – proximity to Site, infrequently downwind	High – dust nuisance students	Medium	Site staff will enforce strict waste acceptance protocols to manage	
	3	175	E	6.8	Low – distant to Site, infrequently downwind	Medium – potential for sediment to accumulate	Medium	the deposit of potentially dusty wastes.	
	4	<10	SW	4.3	High – close proximity to Site, occasionally downwind	Low – transient dust annoyance	Medium	On site speed limits will be	
	5	<10	E	6.8	High – close proximity to Site, infrequently downwind	Low – transient dust annoyance	Medium	enforced and internal site roads will be maintained and cleaned	
	6	40	SE	2.5	High – close proximity to Site, occasionally downwind	Low – derelict site but potential dust nuisance to future residence	Medium / High	with a bowser or road sweeper. If required, the road sweeper will be	
	7	325	E	6.8	Low – distant to Site, infrequently downwind	Low – transient dust annoyance	Low	used on highways.	
Fugitive dust	8	350	E-SE	6.8-2.5	Low – distant to Site, infrequently downwind	High – dust nuisance residents	Medium	All vehicles will use the proposed wheel wash to remove excess mud	
emissions generated	9	185	E	6.8	Medium – proximity to Site, infrequently downwind	Medium – dust nuisance workers	Medium	or debris which may dry and give rise to dust and debris on public	
by: Vehicle movements	10	340	NE	17.2	Medium – distant to Site, frequently downwind	High – dust nuisance residents	Medium	highways. Wheel wash will be inspected and maintained as	Low
and handling of waste on	11	<10	N	12.3	High – close proximity to Site, frequently downwind	Medium – potential for sediment to accumulate	Medium	appropriate.	
site	12	70	E	6.8	High – close proximity to Site, occasionally downwind	Medium – transient dust annoyance	Medium	Deposit of material will not be undertaken from height to reduce	
	13	<10 - 500	N-S	0 - 17.2	High – proximity to Site, frequently downwind	Medium – potential deposition on sensitive vegetation	Medium	dust.	
	14	340	N	12.3	Medium – distant to Site, frequently downwind	Medium – potential for sediment to accumulate	Medium	During dry or windy conditions appropriate controls will be put in	
	15	500	NW	7.3	Low – distant to Site, infrequently downwind	Medium – dust nuisance workers	Medium	place such as dampening down of site roads/stockpiles and	
	16	50	SW	4.3	High – close proximity to Site, infrequently downwind	Medium – potential for sediment to accumulate	Medium	restricting or suspending activities.	
	17	600	E	6.8	Low – distant to Site, infrequently downwind	Medium – potential deposition on sensitive vegetation	Medium	Daily visual inspection by appropriate site staff taking account of the prevailing wind direction.	
	18	970	S	4.5	Low – distant to Site, occasionally downwind	Medium – potential deposition on sensitive vegetation	Medium		
	19	370	E	6.8	Low – distant to Site, infrequently downwind	Medium – potential deposition on sensitive vegetation	Medium		



Table 4 – Fugitive Mud Emissions Risk Assessment and Management Plan

			Receptor						
Hazard / Pathway	ID No	Distance (m)	Direction	Freq. Downwind (%)	Probability of exposure	Unmitigated Consequence	Initial Risk	Risk Management	Residual Risk
	1	<10	E	6.8	High - direct contact with site access road	High - potential hazardous road conditions	High		
	2	370*	E	6.8	Medium - significant distance by road to receptor	High - potential hazardous road conditions	Medium		
	3	175	E	6.8	Low – no physical connection	Low – no impact	Low	Tarmac surfaces will significantly reduce disturbance of ground and production of fugitive	
	4	<10	SW	4.3	High - direct contact with site access road	High - potential hazardous road conditions	High	mud.	
	5	<10	E	6.8	Low – no physical connection	Low – no impact	Low	All departing vehicles will be required to use the	
	6	40	SE	2.5	Low – no physical connection	Low – no impact	Low	proposed wheel wash at least once to remove accumulated mud or debris. Site staff at the	
Fuelking	7	1,125*	E	6.8	Low – significant distance by road to receptor	High - potential hazardous road conditions	Medium	weighbridge will check departing vehicles and redirect them through the wheel wash if necessary.	
Fugitive mud emissions	8	1,550*	E-SE	6.8-2.5	Low – significant distance by road to receptor	Low – no impact	Low	The wheel wash will be subject to regular maintenance to ensure its effectiveness.	
generated by: Vehicle	9	1,700*	E	6.8	Low – significant distance by road to receptor	Low – no impact	Low	The integrity of the haul roads will be regularly	Low
movements and handling	10	2,200*	NE	17.2	Low – significant distance by road to receptor	Low – no impact	Low	assessed to ensure the surface is not accumulating mud that could be tracked off site. Repairs will be	LOW
of waste on	11	<10	N	12.3	Low – no physical connection	Low – no impact	Low	made to surfaced roads or where potholes / low points are causing water or mud to accumulate.	
site	12	70	E	6.8	Low – no physical connection	Low – no impact	Low		
	13	<10-500	N-S	0 - 17.2	Low – no physical connection	Low – no impact	Low	Internal roads will be maintained and cleaned as necessary using a road sweeper.	
	14	340	N	12.3	Low – no physical connection	Low – no impact	Low	A daily visual inspection will be made of the public	
	15	530	NW	7.3	Medium - significant distance by road to receptor	High - potential hazardous road conditions	Medium	highway. Where mud is positively identified as being associated with the site, then road sweepers	
	16	50	SW	4.3	Low – no physical connection	Low – no impact	Low	will be employed without delay to remove the mud	
	17	600	E	6.8	Low – no physical connection	Low – no impact	Low	/ debris.	
	18	970	S	4.5	Low – no physical connection	Low – no impact	Low		
	19	370	E	6.8	Low – no physical connection	Low – no impact	Low		

Notes: * approximate distance via road



Table 5 – Accident Management Plan

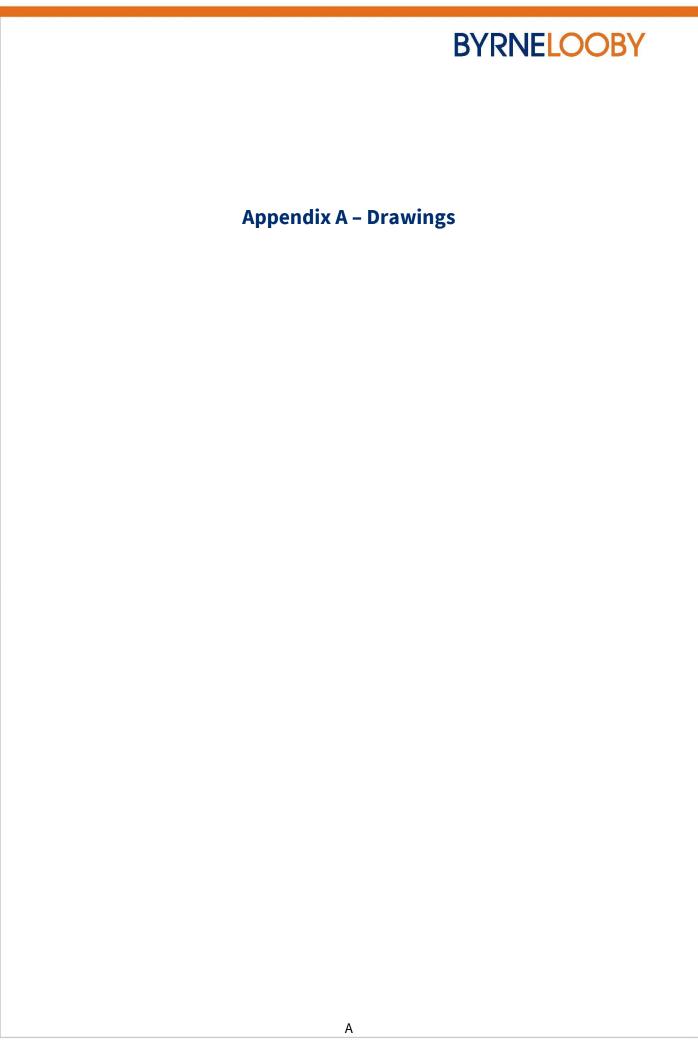
Hazard	Receptor	Pathway	Probability	Consequence	Overall Risk	Risk Management	Mitigated Risk	
Fuel / engine oil Leak or damage to portable fuel bowser, static fuel storage tank or site vehicles	Groundwater	Through ground	Low	High - pollution of groundwater	Medium	Fuel and engine oils stored away from proposed WTS with appropriate secondary containment and spillage contingencies. Site vehicles will not be refuelled within WTS; Site vehicles and plant subject to regular preventative maintenance in accordance with EMS procedures. Site has an impermeable surface and offloading area has sealed drainage	Low	
Fire Uncontrolled	Groundwater	Through ground	Low	High - pollution of groundwater through firewater run-off or leaks from damaged equipment	Medium	Wastes to be accepted at site will effectively be inert, have a low organic content and inherently non-combustible in nature. Site vehicles and plant subject to regular preventative maintenance in line with site EMS procedures.		
burning of wastes or Site vehicles.	Receptors listed in Table 1 above	Airborne	Low	Medium - smoke / odour annoyance	Medium	Fire control equipment will be on hand, with major incidents to be dealt with by the Fire Brigade in accordance with site EMS Procedures. No smoking except in designated areas. Site has an impermeable surface and offloading area has sealed drainage		
Explosion Compressed gas	Site staff	Airborne	Low	High - danger of serious injury	Medium	Fuel is stored in separate installation with appropriate controls to		
cylinders, combustion of fuel storage tank	Groundwater	Through ground	Low	High - pollution of groundwater through leaks from damaged equipment	Medium	prevent fire or explosion (i.e. no smoking on site). Compressed gases not required and therefore not present for operation.	Low	
Wastes deposited Chemical reaction of incompatible wastes	Receptors listed in Table 1 above	Airborne	Low	Medium - odour annoyance or smoke from oxidising agents	Medium	Waste acceptance protocols will exclude the deposit of chemically reactive wastes. Those accepted will be of an inert nature and will not generate noxious gases or contaminating leachate.	Low	
Vandalism Damage to Site vehicles, fuel	Groundwater	Through ground	Low	High - pollution of groundwater through leaks from damaged equipment	Medium	Existing Site security will prevent access by unauthorised persons. Vehicles will be kept overnight in a secure area with appropriate security measures.	Low	
bowsers, air extraction system	Receptors listed in Table 1 above	Airborne	Low	Medium - odour annoyance	Medium	Site has an impermeable surface and offloading area has sealed drainage		

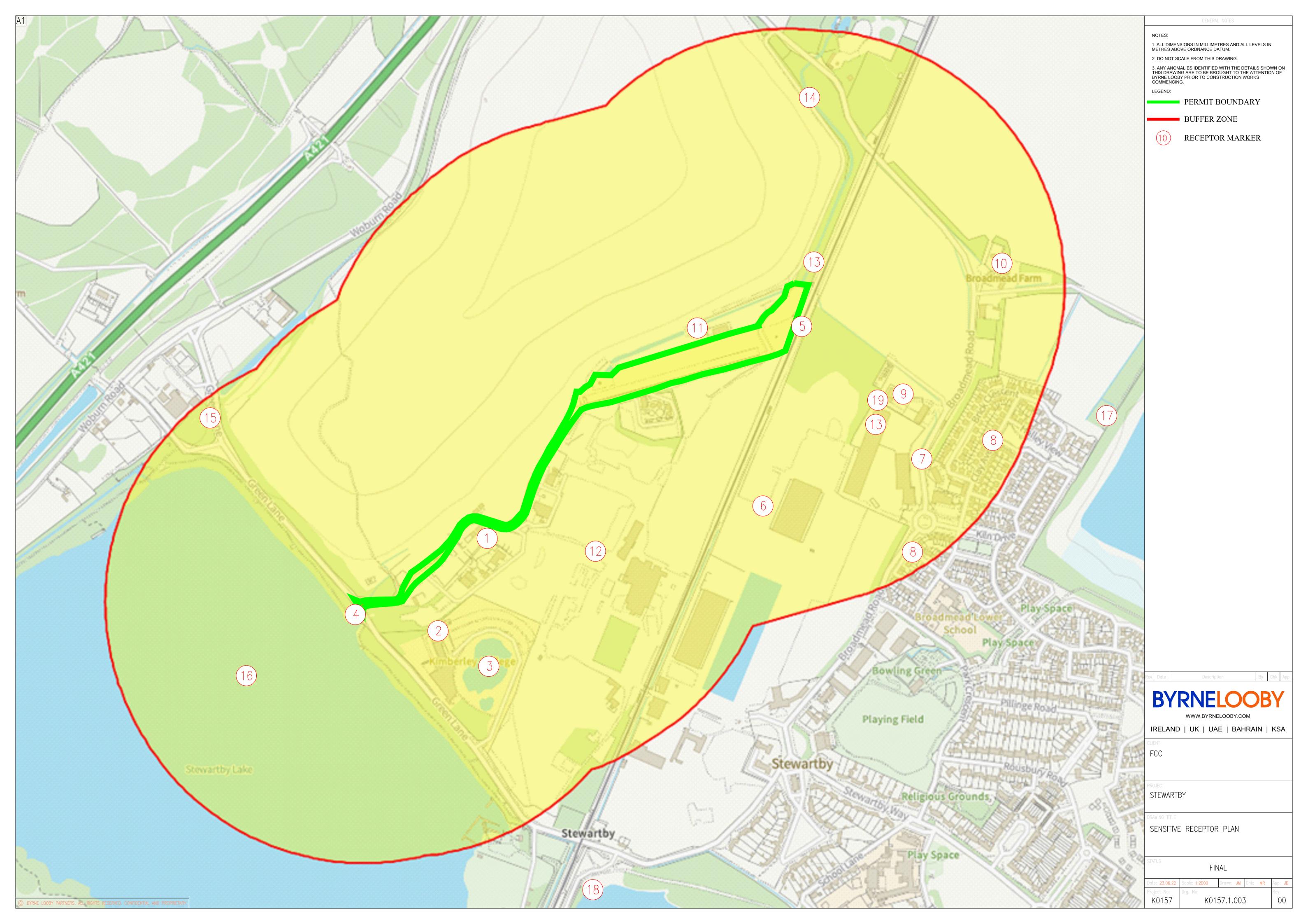


4 Conclusions

The operational hazards associated with the proposed WTS have been considered in the tables above. It has been concluded that with the use of appropriate mitigating controls where necessary, the activity does not present a significant risk to surrounding receptors.

The potential hazards for emissions to groundwater and surface water, noise & vibration, dust, mud and accidents have been considered and the risks associated have been reduced and managed as far as reasonably practicable. The most sensitive receptors have been identified and their impacts of any emissions from sites have been addressed with mitigation measures in place. As a result, it is considered that any emissions from the WTS will not have a detrimental impact on the sensitive receptors identified.







Appendix B – Climate Change Risk Assessment

Anglian river basin district: climate change risk assessment worksheet

Name (as on your part A application form): Stewartby Waste Transfer Station

Our permit reference number (if you have one): EPR/LB3102MX

Your document reference number: 14-K0157-ENV-R-00003

Risk assessment worksheet for the 2050s

Anglian river basin district

You must carry out a climate change risk assessment for any new bespoke waste and installations permit applications if you expect to operate for more than 5 years. Use the user guide to complete the table. You can add in extra pages if necessary.

Consider how your operations will be affected by the changes in weather and climate described in the table. Consider any changes to average climate conditions that may impact on your operations, for example extreme rainfall.

Also consider:

- critical thresholds where a 'tipping point' is reached, for example a specific temperature where site processes cannot operate safely
- changes to averages for example an entire summer of higher than expected rainfall causing waterlogging
- where hazards may combine to cause more impacts

You can add in other climate variables if you wish.

If you have stated on your application form that you do not expect to be operational in 2050, you must still consider climate change risks for the time you do intend to operate. Whilst the variables are for the 2050s, this is an estimated date and you may experience these conditions before then.

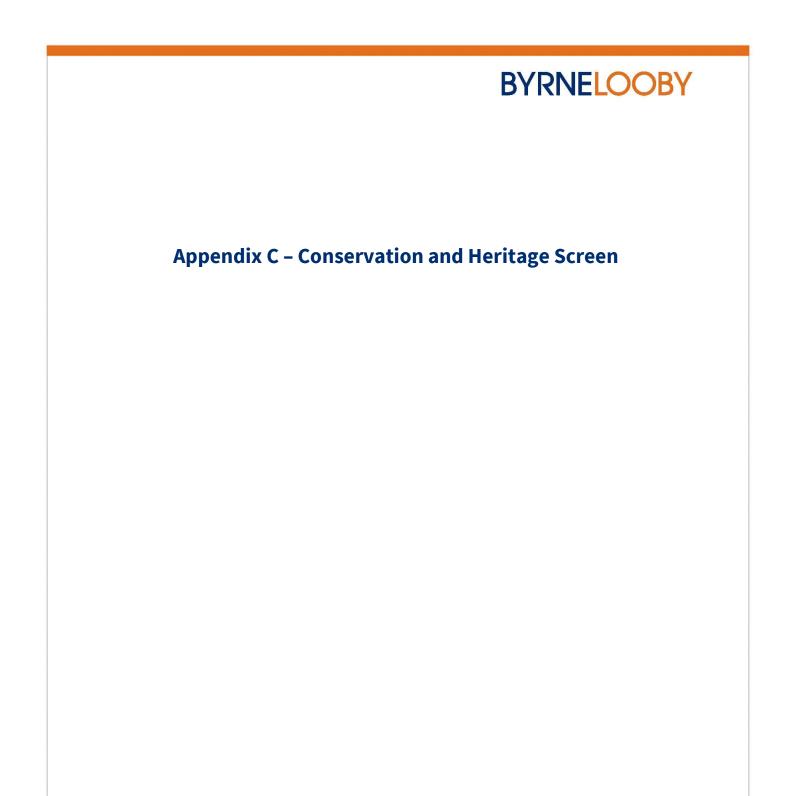
This worksheet will sit in your management system. It must appear on the management system summary you submit with your application, even if you do not need to submit the whole risk assessment with your application.

If your pre-mitigation risk score (column D) is 5 or higher, you must complete columns E to H.

Potential changing climate variable	A Impact	B Likelihood	C Severity	D Risk	E Mitigation	F Likelihood	G Severity	H Residual
	·			(B x C)	(what will you do to mitigate this risk)	(after mitigation)	(after mitigation)	risk (F x G)
Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now.	No negative impact expected	1	1	1	No mitigation required as very low risk. Score under 5.	1	1	1
2. Winter daily maximum temperature could be 4°C more than the current average, with the potential for more extreme temperatures, both warmer and colder than present	No negative impact expected	1	1	1	No mitigation required as very low risk. Score under 5.	1	1	1
3. The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity)*.	Surface water drainage system overloaded	3	2	6	Considered in surface water management plan Drains managed	2	2	4

Potential changing climate variable	A Impact	B Likelihood	C Severity	D Risk (B x C)	E Mitigation (what will you do to mitigate this	F Likelihood (after	G Severity (after	H Residual risk
					risk)	mitigation)	mitigation)	(F x G)
Average winter rainfall may increase by 35% on today's averages.	Surface water drainage system overloaded	3	2	6	Considered in surface water management plan Drains managed Increase surface water capacity	2	2	4
5. Sea level could be as much as 0.6m higher compared to today's level *.	Inland site. Low impact expected	1	2	2	No mitigation required as very low risk. Score under 5.	1	2	2
6. Drier summers, potentially up to 39% less rain than now.	Increased dust – less water to suppress	3	3	9	Increase surface water storage capacity to ensure there is sufficient water for dust suppression	2	2	4
7. At its peak, the flow in watercourses could be 35% more than now, and at its lowest it could be 80% less than now.	No onsite discharge point. No negative impact expected.	1	1	1	No mitigation required as very low risk. Score under 5.	1	1	1

^{*}Indicates data has come from climate change allowances as part of the spatial planning process. Evidence from your planning submission is acceptable evidence for this worksheet.



C

vironment Nature and Heritage Conservation

Screening Report: Bespoke Waste

Reference EPR/LB3102MX/A001

NGR TL 01694 43157

210 Buffer (m)

Date report produced 14/02/2022

Number of maps enclosed 2

The nature and heritage conservation sites and/or protected species and habitats identified in the table below must be considered in your application.

Protected Species

Screening distance (m)

Further Information

European Eel

migratory route **European Eel**

Code 2

up to 500m **Natural England**

Appropriate Local Record Centre (LRC)

Environment Agency. Dial 03708 506 506 for your

local Fisheries and Biodiversity team

Protected Habitats

Screening distance (m) **Further Information**

Deciduous Woodland

up to 50m

Natural England

Unfortunately we cannot provide you with the details of all protected species. This is because we either have not been given permission by the owner of the species data, or they have asked us not to identify the species as they are vulnerable. In these instances you must contact the relevant organisation listed above. A small administration charge may be incurred for this service.

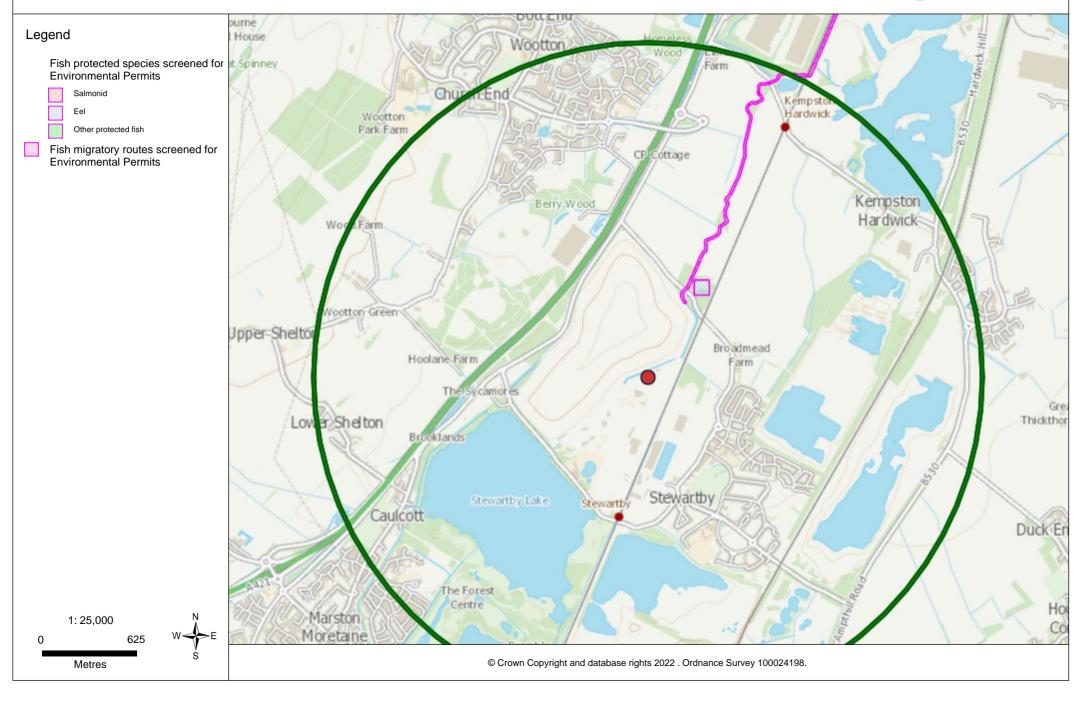
Where protected species are present, a licence may be required from <u>Natural England</u> to handle the species or undertake the proposed works.

Please note we have screened this application for protected and priority sites, habitats and species 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.

Please note 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 Species





Protected Habitats





Nature and Heritage Conservation

Screening Report: Bespoke Waste

Reference EPR/LB3102MX/A001

NGR TL 01694 43157

Buffer (m) 210

Date report produced 25/10/2023

Number of maps enclosed 2

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.

Protected Species within	Screening
screening distance	distance

(m)

European eel up to 500m Natural England

Appropriate Local Record Centre European eel migratory route

(LRC)

ng

Environment Agency. Dial 03708 506 Code 2

506 for your local Fisheries and

Biodiversity team

Further Information

Reference: Bespoke waste screen

Version: 6.0

Security Marking: OFFICIAL

Page 1 of 2

Protected Habitats within screening distance

Screening Further Information distance (m)

Natural England

Deciduous woodland

up to 50m

(see map below)

Unfortunately, we cannot provide you with the details of all protected species. This is because we either have not been given permission by the owner of the species data, or they have asked us not to identify the species as they are vulnerable. In these instances, you must contact the relevant organisation listed above. A small administration charge may be incurred for this service.

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.

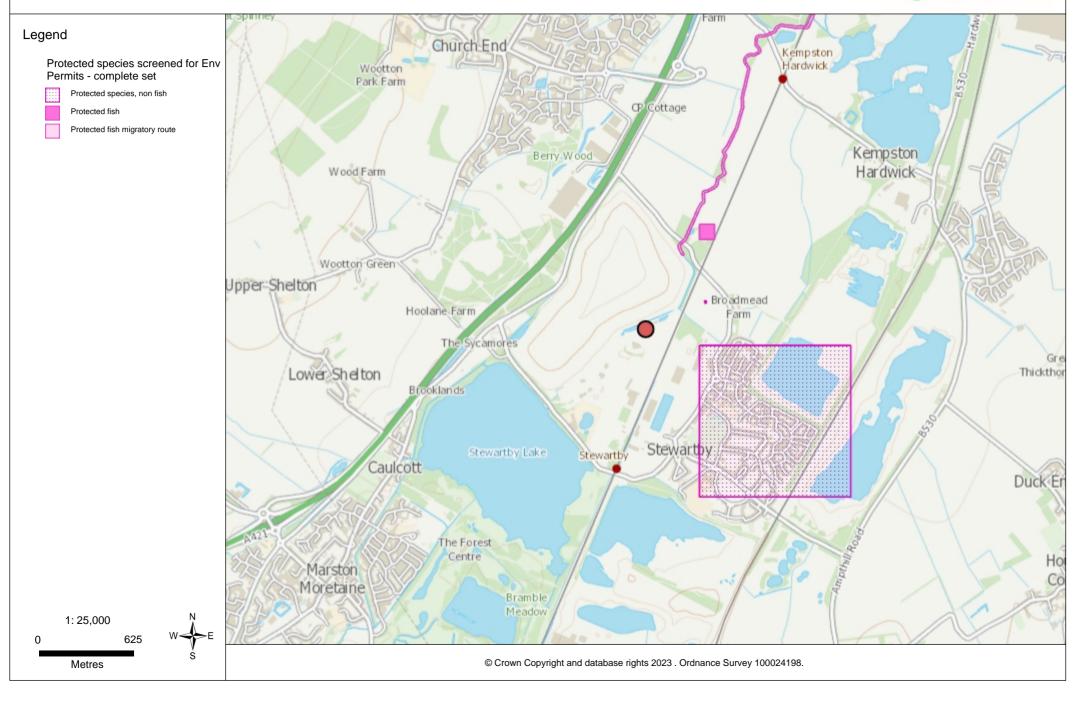
Special Areas of Conservation (cSAC or SAC), Special Protection Area (pSPA or SPA), Marine Conservation Zone (MCZ), Ramsar, Sites of Special Scientific Interest (SSSI), National Nature Reserve (NNR), Local Nature Reserve (LNR), Local Wildlife Sites (LWS), Ancient Woodland, relevant species and habitats.

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 Species

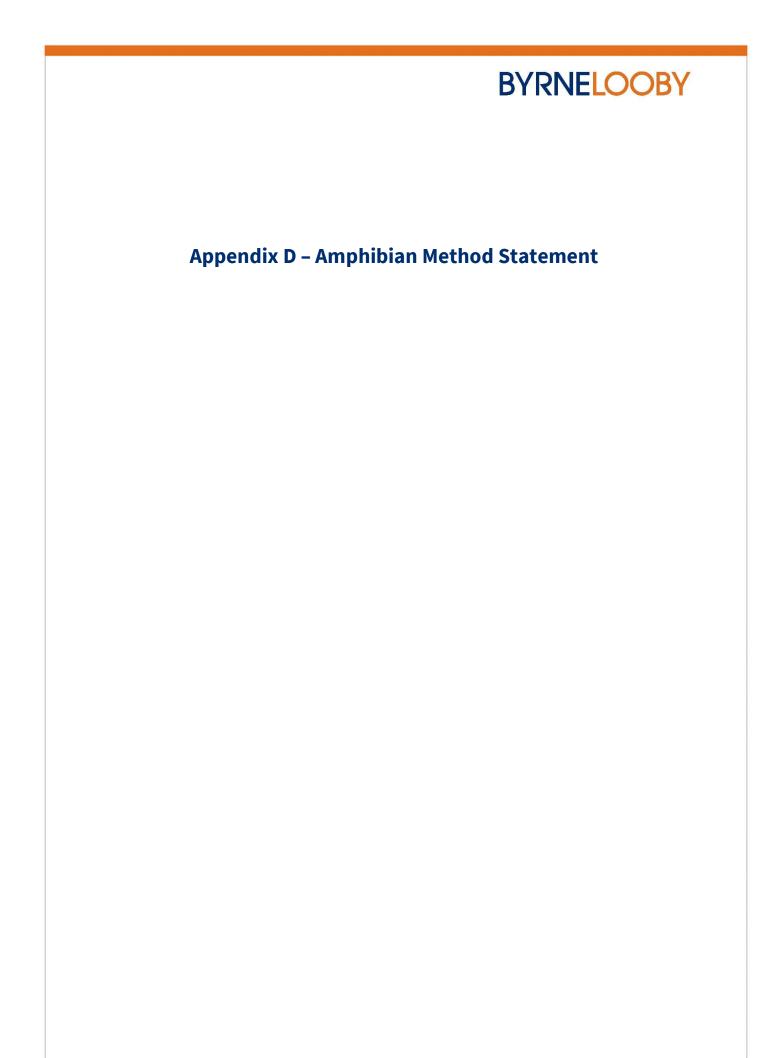




Protected Habitats







Stewartby Rail Sidings on behalf of FCC Environment Amphibian Method Statement





Document Control					
Project Name:	Stewartby Rail Sidings				
Project Number:	AxisL-043-1615				
Report Title	Amphibian Method Statement				

Issue	Date Notes		Prepared	Reviewed
V1	11/10/2022	Draft for client approval	Z. Hinchcliffe MRes BSc (Hons.)	S. Whiteley BSc MCIEEM
F1	13/10/2022	Final	A. Logan <i>MSc MCIEEM</i>	

This report has been prepared in accordance with the terms and conditions of appointment for the Report [on request]. Avian Ecology Ltd. (6839201) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

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2	LEGISLATION	2
3	IMPACTS	2
4	METHOD STATEMENT	2

1 INTRODUCTION

1.1 Background

- 1.1.1 Avian Ecology Limited was commissioned by Axis PED to provide a Method Statement for great crested newts in relation to the proposed works to bring the existing Stewartby Rail Sidings back into operational use at land Stewartby, Bedfordshire ('the Site').
- 1.1.2 This document should be read with reference to the Ecological Assessment (Avian Ecology, dated 11th May 2022). The Ecologist Assessment details full details of surveys, results and assessment for great crested newt, this is not repeated here.
- 1.1.3 Three existing rail lines (Lines 1, 2 and 3) are proposed to be made operational with the installation of a new 6m high acoustic fence. Due to potential vegetation clearance involved as part of the minimal ground works, the LPA through pre-application discussion, requested that an ecology walkover of the Site was included with the application.
- 1.1.4 In August 2022, NatureSpace submitted a Consultee Response with comments on the potential for great crested newt *Triturus cristatus* (GCN) being present within the Site or in the immediate surrounding area. The Consultee Response provided by NatureSpace included the following:

The majority of the Site offers negligible terrestrial habitat (being hardstanding) for amphibian and reptile species; however, boundary habitats consisting of ponds, scrub, hedgerows, ditches, field margins and woodland do provide suitable habitat for breeding, foraging, shelter and refuge.

As GCN have been recorded in the wider area, Reasonable Avoidance Measures (RAMs) will be implemented as a precautionary measure. If the proposed development is consented and the mitigation (RAMs) implemented, the favourable conservation status of amphibian and reptile species potentially present will be maintained. With GCN previously identified in a nearby pond 16m from the Site boundary, it is acknowledged that presence in adjacent habitats is possible. However, as the majority of the Site itself is of minimal and low-quality value to GCN, it is considered unlikely that GCN will be present in the majority of the Site. Due to the low impact of the proposed works, which includes minimal scrub clearance located approximately 460m from the identified pond, it is considered that the implementation of RAMs is appropriate for conserving and protecting any GCN in the wider area."

The Proposed Planning Condition associated with GCN for the application - 22/01285/EIAWM:

No development shall take place until a Reasonable Avoidance Measures document written by a suitably qualified ecologist is submitted to and approved by the Local Planning Authority."

Reason: "To minimise the impacts of development on biodiversity, in accordance with Policy 42S and 43 of the Bedford Borough Local Plan 2030 and paragraphs 174 and 180 of the NPPF".

1.1.5 This Method Statement therefore sets out the Reasonable Avoidance Measures (RAMs) required to be implemented and adhered to for the enactment of the proposed works. All works must be undertaken in accordance with this Method Statement to ensure that they will have no adverse effects on amphibians and to ensure legislative compliance.

2 LEGISLATION

- 2.1.1 Great crested newt and their habitats are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). The Act and Regulations make it an offence to kill, injure or take a great crested newt; damage, destroy or obstruct access to any place that a great crested newt uses for shelter or protection; and intentionally or recklessly disturb a great crested newt while it is occupying a structure or place that it uses for shelter or protection.
- 2.1.2 Great crested newt and common toad *Rana temporaria* are listed as priority species under Section 41 (England) of the NERC Act 2006 and UK BAP and are therefore a material consideration during the planning process.
- 2.1.3 Great crested newt is also listed on the Bedfordshire and Luton Biodiversity Action Plan¹

3 IMPACTS

- 3.1.1 A full assessment of potential impacts is provided within the Ecological Assessment and not repeated here.
- 3.1.2 Several Natural England Class Licenses for great crested newt have been granted within 2km of the Site, with the closest identified approximately 340m east of the Site boundary in 2014.
- 3.1.3 No ponds are present within the Site, however several pits and pools are present adjacent to the Site to the north. The Site itself provides potential terrestrial habitat for resting and hibernating.
- 3.1.4 The development works do not require a licence from Natural England or district licence from NatureSpace and the implementation of RAMs is sufficient to protect amphibians/reptiles and avoid or minimise significant disturbance to these species. Details of RAMs are presented in **Section 4**, below.

4 METHOD STATEMENT

- 4.1.1 In order to facilitate the proposed works, a working RAMs Method Statement will be adopted to limit disturbance to avoid significant impacts on amphibian populations potentially present.
- 4.1.2 The full site specific Reasonable Avoidance Measures are provided overleaf.

¹ https://www.bedscape.org.uk/BRMC/newsite/docs/bedslife/bap%20plans/SAP%202018%20gcn.pdf (accessed 4th October 2022)

Reptile and Amphibian Reasonable Avoidance Measures (RAMS)

Method Statement Objectives

Any development related activities on the Site, such as vegetation clearance or excavations in areas of suitable
newt or reptile habitat may potentially affect amphibian and reptile species. As a result, safeguards must be
implemented to protect these species and the Method Statement below details measures to be implemented
to ensure these objectives are achieved.

Method Statement

- This Method Statement should be followed for the proposed works within the Site, which may affect the surrounding terrestrial habitat. Minor or short term destructive or disturbance works will also follow this Method Statement to ensure legal compliance and to ensure the objectives are achieved.
- 3. The following measures will be adopted throughout the construction period of the proposed development:
 - Site operatives will be informed by 'tool box' talk of the potential for protected species to occur on-site, what to look out for and what to do in the event that animal is found.
 - A stand-off distance of at least 10m will be maintained from drainage ponds located on the adjacent landfill site.
 - Clearance works within the Site should only commence after a careful visual inspection undertaken by a suitably experienced ecologist has determined that no animals are present. Vegetation should be reduced to a height of c.150mm prior to ground works commencing to aid visual searches and encourage individuals to temporarily move away from the working areas.
 - Habitat reduction works are to be undertaken between April October which will avoid disturbing amphibian/reptiles during the hibernation season; when these species will be more susceptible to disturbance, this will also encourage these species (if present) to avoid utilising habitats within the Site for hibernation purposes.
 - Should any trenches and excavations be required, an escape route for animals that might enter the
 trench must be provided, especially if left open overnight. Ramps should be no greater than 45 degrees
 in angle. Ideally, any holes should be covered.
 - Any excavated material stored overnight should be searched prior to being used as infill.

If an amphibian is found, work must stop immediately, and contact should be made with a licensed, qualified ecologist.



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