DOCUMENT C

Continuing Competence Certificate

This certificate confirms that

Kevin Robotham

Has met the relevant requirements of the Continuing Competence scheme for the following award(s) which will remain current for two years from 24/02/2021

TSNH	Transfer - Non Hazardous Waste
TMNH	Treatment - Non Hazardous Waste

Expiry Date: 24/02/2023

Verification date: 11/02/2021

Authorised:

Director of Qualifications and Standards

Learner ID: 12787

Certificate No.: 5175013

Date of Issue: 24/02/2021

CIWM Chief Executive Officer

The Chartered Institution of Wastes Management

00157771

DOCUMENT C

WAMITAB

WASTE MANAGEMENT INDUSTRY TRAINING AND ADVISORY BOARD

CERTIFICATE No: 08531

CERTIFICATE OF TECHNICAL COMPETENCE

This Certificate confirms that

Kevin Nigel Robotham

has demonstrated the standard of technical competence required for the management of a facility of the type set out below

Facility Type:

Level 4 in Waste Management Operations -

Managing Transfer Non-Hazardous Waste (4TSNH)

Authorising Signatures:

Director General

Director

Date of issue: 06 March 2007

DOCUMENT A.

ENVIRONMENTAL MANAGEMENT SYSTEM

FOR

DRURYS ENVIRONMENTAL SERVICES LIMITED

4 FOLGATE ROAD

NORTH WALSHAM

NORFOLK

NR28 OAJ

CONTENTS

APPENDICES

1.0 SITE DESCRIPTION

Drurys Environmental Services Limited holds the Permit or Waste Management Licence and operates the waste transfer station at Folgate Road, North Walsham, Norfolk, NR28 0AJ and the nearby linked inert waste processing site at Cornish Way Business Park North Walsham NR28 0FE. The sites will accept waste from domestic, commercial and industrial customers.

The facilities are intended for the reception, storage and processing of wastes prior to final recovery or disposal. The proposed recycling operations include sorting domestic, commercial and industrial waste to produce materials suitable for reprocessing, so reducing the need to use virgin materials and crushing, and screening of soils and stones to produce various aggregate products and in many cases treated as "end of waste" items.

The Company's office is situated at the following address:

Folgate Road
North Walsham
Norfolk
NR28 0AJ

Tel: 01692 405820

This Environmental Management System has been produced by the company in order to support the variation of the existing Waste Management Licence in compliance with the requirements of Waste Management Paper No.4 – Licensing of Waste Management Facilities and to update the working plan previously used.

Site history and planning status

The site is located on land at Folgate Road, North Walsham, Norfolk, NR28 0AJ Grid Reference TG 281 312 and extends to neighbouring land known as Cornish Way Business Park NR28 0FE.

The site currently has planning permissions from Norfolk County Council Nos.C/92/1007,C/94/1001,C/1/96/1001,C/1/2003/1001,C/1/2005/1006,C/1/2007/001,C/1/2007/1007,C/1/2010/1012,C/1/2010/1014,C/1/2012/1010,C/1/2014/1011 C/1/2015/1001,C/7/2015/1018, C/1/2016/1018 and C/1/2017/1010

Licence area and waste management operations

The area, which is the subject of the existing permit and Waste Management Licence, is outlined in green on site plan shown as Schedule 1 attached to WML71449. All references to 'the site' in this Working Plan will mean this area and the infrastructure, plant and equipment associated with the recycling centre.

The area above was extended under the variation to permit numbered EPR/ZP3194NN dated 19/3/2013 and is shown outlined in green on the updated site plan contained in **Appendix 9** of this document.

2.0 OPERATIONS

The Waste Management Licence and Permit numbers WML71449, EPR/ZP3194NN and EPR/ZP3194NN/V003 permit the storage (keeping), prior to treatment (all types of handling/processing) on site of waste. Waste treatment processes carried out on site may include, sorting (by hand and mechanical plant), shredding, screening, and baling.A mobile concrete crusher and soil screen and various other equipment will be used when required.

Specified waste management operations will include waste disposal and waste recovery operations listed in Annex 1 and Annex 2 of the Waste Framework Directive. They are in summary:

D9: Physiochemical treatment of waste pending disposal

D15: Storage of waste pending disposal.

R3: Recycling or reclamation of organic substances.

R4 Recycling or reclamation of metals

R5: Recycling or reclamation of inorganic materials

R13: Storage of waste pending recovery

Permitted Waste types and quantities

The waste types to be accepted at the site will be, all those categorised in table 1.2A and specified in detail in Appendices A,B,C,D or E attached to the existing Permit documents. In addition the following waste codes:

010599 (waste not specified) cement powder
201036 discarded electrical and electronic equipment other than those mentioned in 200121, 200123 and 200135

Waste delivered to the site will be in containers on vehicles such as skip vehicles and roll on/off skips and a variety of vehicles for gate fees. The throughput of the site will equate to less than 75,000 tonnes per annum.

The maximum amount of waste to be stored on site is:

Non hazardous waste including plastic, wood,paper,card and green waste etc – 3000 tonnes
Inerts – 50000 tonnes
Metals – 250 tonnes
Hazardous waste (Mirror entry) 10 tonnes

If the maximum storage capacity of the site is reached then no further waste will be accepted until waste can be removed from the site and taken to a suitably licensed site.

Hours of operation

The operating hours for the receipt of waste, and all other waste processing operations, will be:

Monday to Friday	0630 - 1830
Saturday	0630 - 1700
Sunday and Bank Holidays	0700 – 1700

There are limitations on operating hours within the existing planning permissions for the site which will be adhered to.

Suitable lighting will be made available on site for operations that are carried out after official lighting up times, to ensure that operations can be carried out safely.

Any proposal to conduct site operations outside the hours listed above will be subject to prior notice to Norfolk County Council.

SITE ENGINEERING AND INFRASTRUCTURE

Site Surfacing:

External and internal impermeable surfaces are constructed with the following materials:

Type 1 crushed concrete base (600mm thick)
Reinforcing mesh or concrete mix strengthener
Ready mixed concrete (C30 specification – 270 kg/m3) to BS 5328 –200mm thick

Hardstanding areas are made up of:

Whole concrete and brick rubble to various depths
Capped with Type 1 crushed concrete – 150mm thick

External Drainage via Interceptor:

Impermeable surfaces drain to a Klargester NSB55 By-pass Class 2 interceptor or similar as shown on drawings 22209/301/302. Surface water pipes that serve this interceptor and silt trap are colour coded blue. Only clean uncontaminated water will be discharged.

The above installations have been carried out by suitably qualified and

experienced contractors in accordance with current Health and Safety Regulations. Electrical work has been carried out by a qualified electrician working to the latest edition of IEE.

Separated light liquid will be removed from separator when the oil capacity has been reached.

An oil level alarm system will be installed which gives warning when the separated light liquid/water interface level reaches 90% of the oil storage volume.

The separator will be inspected at least once every month (the silt trap once per week) or more frequently if experience dictates. A log will be maintained in the site diary detailing the depth of oil found, any oil volume removed and any silt removal or cleaning carried out.

The separator waste is treated as a "hazardous waste" under the terms of The Hazardous Waste Regulations. The Cleansing contractor employed to empty the interceptor is registered with the Environment Agency and the final disposal of the waste is to a licensed facility.

External Permeable Surfaces:

Run off from external areas of hardstanding will not be contained by a separate drainage system. The permeable nature of the surface will provide sufficient drainage as only clean inert wastes will be stored in these areas. A soil bund creates a suitable boundary for the inert waste site as shown in drawing 22209/004. .

Roof Water Run Off:

Clean roof water run-off will be directed by rainwater goods such a guttering and downpipes to the drainage ditch that runs adjacent to the site boundary. Clean water drainage pipes (that do not enter the interceptor) are colour coded blue on drawing 22209/301/302.

Internal Drainage:

Potentially contaminated surface water from within the buildings will drain to a sealed tank via a network of falls and drainage gullies, which are colour coded blue on drawing 22209/301/302.
The sealed tank will be constructed of 4mm steel coated with a bitumastic waterproofing agent and have a capacity of approximately 2000lts.

A dip stick will be installed which will give warning when the collected liquids exceed 80% of the capacity of the tank at which time emptying will take place.

The tank will be inspected at least every month or more frequently if experience dictates. A log will be maintained in the site diary detailing the volume removed and when the tank is emptied.

The Cleansing contractor employed to empty the tank will be registered with the Environment Agency and the final disposal of the waste will be to a licensed facility.

Access and parking:

Access to the site is gained from Folgate Road. The site entrance is shown on Drawing No. 22209/1003.

Adequate parking space is available on the site, for the parking of vehicles associated with the operation of the site.

3.0 WASTE ACCEPTANCE, TREATMENT AND STORAGE

The site will be primarily used for the receipt of waste from Drurys Environmental Services Limited own waste operation. Where waste is brought in by other hauliers, then the carrier registration details will be checked for all new haulage operators bringing waste to the site, and the details will be periodically checked with the EA to ensure registration. The site management will give guidance to all employees, sub-contractors, other waste carriers and customers regarding waste types, which are acceptable at the site.

The site will keep records to demonstrate how the waste hierarchy (referred to in Article 4 of the Waste Framework Directive) is being applied in particular with regard to quantifying each waste stream and being able to show how the decision is made as to how each waste stream is either recycled recovered or disposed of.

When a driver employed by Drurys Environmental Services Limited arrives at a customer's site to collect a consignment of waste, they will inspect the load for conformity with the Waste Management Licence.

(i) If the load is satisfactory the driver will sign the relevant paperwork and remove the load from the customer's premises.

(ii) If the waste does not meet the waste description, the customer will be advised to check the note and give a more detailed description of the waste, or remove the unauthorised waste.

(iii) If the description of the waste reveals that the waste is not permitted at the transfer station, arrangements will be made to dispose of the waste at an alternative site or leave it at the waste producer.

(iv) The driver may also report back to the site manager for instructions

Checking in and inspection of loads:

All incoming vehicles are required to report to the operative in the waste reception area. The details of the load will be recorded, and the load checked by the operative to ensure that it is acceptable. Any deviation from the procedures, or problems with any load, will be reported to the site manager.

The nature of waste may make full inspection difficult until the load is deposited. If unauthorised waste is discovered after deposit two courses of action are available:

(i) Return the waste to the producer and advise the Environment Agency of the deposit; or,

(ii) Where it is not practical to return the load to the waste producer, or where the removal off site of the waste may cause further problems, then the waste will be deposited in the quarantine container(s) provided for unauthorised wastes. A record of waste placed in these containers will be made. Arrangements will be made to clear the container(s) of rejected waste as soon as practically possible but no later than 72 hours after the waste was received.

Waste deposit, handling, storage and dispatch:

Deposit and Handling:

Once a load has been accepted for deposit usually after passing over the site weighbridge, and is found to comply with the conditions of the Waste Management Licence or Permit, the following procedure will apply:

(i) The driver will be directed to deposit in the appropriate waste reception area within the buildings as shown on drawing 22209/1005. Having been checked for any contaminants any inert waste can then be transferred to the inert waste area.

(ii) The mixed load will sorted using mechanical equipment. Wood, hardcore, metals or other items will be removed, and stored in segregated containers/bays as shown on drawing 22209/1001. The containers storing segregated materials will be positioned in the waste transfer building.

(iii) The proportion of waste, which cannot be initially recycled, will then be processed using mechanical equipment such as shredders, screens and trommels and picking belt to remove as much recyclable material as practically possible. Screened soil will be segregated by conveyor and moved to a hardstanding area. A magnet will take metal out of the screened product. The remaining waste will be transported to a suitably licensed waste management site.

(iv) Soil and inert materials suitable for processing will be deposited in the

external inert material tipping area and processed through another trommel as shown on drawing 22209/1001.Suitable resale material will be stockpiled prior to leaving site. Unsuitable material will be transported to a suitably licensed facility. The equipment will be inspected and maintained at suitable frequencies as per the manufacturers recommendations.

(v) Any unsuitable waste will be returned to the main site for reprocessing

(vi) Suitable waste will be deposited in the wood processing area and fed into a shredder to produce a recovered fuel product

(vii) Segregated rubble and stone will be moved to the nearby inert processing site area for further processing into recycled products using a concrete crusher.

(viii) Segregated soils will also be moved to the nearby inert processing site for screening and grading into suitable end of waste products

(iv) Certain buildings will have parts designated for processing different types of waste. Clean wood is also stored pending final shredding and use for biomass fuel. A cardboard baler is also in use in building for paper and card recycling.

(x) For specific waste eg plasterboard and cement bonded asbestos facilities are made available for separation of these in defined areas within covered containers pending disposal at a suitable recycling or landfill facility.

Recycled Products

The production of recycled aggregates on site sometimes comes from materials defined as controlled waste. Such products will therefore also be considered to be waste unless it is demonstrated that they meet the requirements for End of Waste Status. Recycled aggregate products will be produced in accordance with the WRAP Quality Protocol Aggregates from inert Waste. Further soils from recycling operations where necessary will meet the conditions within Regulatory Position Statement 190.

Storage:

If the maximum storage capacity of the site is reached then no further waste will be accepted until waste can be removed from the site and taken to a suitably licensed or exempt waste management operation.

All biodegradable waste will be stored for a maximum of 72 hours.

The height of containers stored outside will not exceed 4 metres.

The height of inert materials stored outside will not exceed 4 metres.

The storage bay's for waste have push walls constructed from steel H Girder and ¼ inch steel plate or suitable sections of concrete walls and/orconcrete "lego" blocks.

Wastes that are considered hazardous will not be accepted at the site, however should any unauthorised wastes turn up during the reception operations it will be stored in clearly labelled container(s) in the quarantine area inside the building. The location of these container(s) within the building may be varied as operating conditions permit but will mainly be in bays shown on drawing 22209/1001. The maximum time any such waste will be stored on site is 72 hours before being removed to a licensed facility.

Wastes that are likely to react with other wastes will be segregated and contained where necessary.

Where it is likely that the internal temperature of the waste will rise, namely organic - monitoring will take place and the waste removed within 72 hours.

Dispatch:

Vehicles used for the dispatch of waste from the site will be instructed to report to the operative in the building. All relevant documentation will be completed and the vehicle will be passed to pick up the load and take it to the disposal site.

Plant ,Machinery and Equipment:

The site will use the following as necessary during the operation of the site:

- JCB Loadalls (or similar)
- Picking line and associated equipment
- Water Bowser
- Loading shovels
- 360 excavators
- Forklifts
- 1x dumper
- Low speed Shredder
- Jaw crusher
- Deck screen
- Generator x 2
- Baling equipment
- Aggregate screening equipment

Additional plant will be hired to cover any busy periods.

General waste will be sorted using a trommel
with associated picking line which will be installed and will be operated and maintained in accordance with the manufacturers recommendations. A deck screen/trommel for sorting inert waste will also be used at the site and will also be operated and maintained in accordance with the manufacturers recommendations as detailed.

Segregated wood waste will be deposited in the wood processing area as shown on drawing 22209/1005 and fed into a mobile wood shredder which will be

operated and maintained in accordance with the manufacturers recommendations.

4.0 MAINTENANCE

Vehicles are subject to inspections every 6 weeks and other plant and equipment are subject to inspection and planned maintenance every 300 hours.

Plant and machinery on site are suitably silenced, and will be subject to maintenance schedules as per manufacturers recommendations.

In the event of breakdown of the loading plant an alternative loading shovel will be brought on site until it is repaired. If an alternative machine cannot be used then no waste will be deposited until the plant is repaired. For major repairs the vehicle will be moved to the workshop until the repair is affected.

The surface of each waste transfer bay will be cleared of all waste at least once every 28 days to allow inspection of the site surface, push walls etc. and to carry out any necessary repairs.

Any spillage of fuel will be cleared immediately by depositing sand or absorbents on the affected area. The sand or absorbents will then be placed in a skip prior to being taken to a suitably licensed site for disposal.

General Inspections/Remedies:

The inspection details for maintenance/ housekeeping are listed on the Site Diary/Inspection Form **Appendix 3.** The Site Diary Inspection Form will be completed by a person who is familiar with the requirements of a waste permit and license for the site. All details of defects, problems and repairs carried out will be recorded on the form on the day that each event occurs..All repairs will be carried out as soon as practically possible, or as agreed otherwise with the Environment Agency.

Any major defects found during the site inspection, which are likely to lead a breach of licence condition, will be repaired by the end of the working day in which they are found where possible. If a repair is not possible by the end of the working day the Environment Agency will be contacted to agree a suitable time-scale for repair.

Surfaces are to be visually inspected on a daily bases as part of the sites daily inspections and a more thorough inspection is to be undertaken of push walls etc by clearance of bays each 28 days. Any maintenance or repairs that are necessary will be recorded in the site diary.

5.0 ACCIDENTS AND INCIDENTS

An accident and incident management plan has been set up for the site which is contained within Appendix 5.

6.0 SITE SECURITY

Gates - The entrance/exit gates are located as shown on Drawing No. 22209/1003. The gates provided suit the adjacent fencing. The gates will be locked at all times when the site is unmanned; they will also be securely locked outside of operating hours to prevent unauthorised access.

Fencing – chain link,timber or similar fencing erected on suitable posts to a height of >1.5 metres, is installed around the perimeter of the site..

Site security will be subject to daily inspection and recorded in the site diary.

All repairs to site security fencing will be made as soon as practically possible following of the discovery of the damage, and the site will be made secure until the repair has been effected.

External lighting will be maintained so that it does not cause a glare beyond the site boundary.

A CCTV system is in operation on the site which is maintained by a suitably licenced company.

7.0 NON-COMPLIANCE

Any non-compliance will be recorded and investigated to establish root cause of the problem. Also a record will be kept of any action taken to resolve the problem and consideration given to any necessary changes to operations in response to the non-compliance. All relevant persons will be made aware of the non-compliance and changes that may be made and notification also sent to the Environment Agency.

To advise the general public about the nature of the site and who they can contact for information or who to notify if they have a concern a notice board will be positioned at the site entrance and will display the following information:

- The site name and address
- Licence Holder name
- Operator name
- The site licence number
- Emergency contact name and telephone number
- Statement that site is licensed by the Environment Agency
- Environment Agency national numbers: 03708 506506 and 0800 807060
- Days and hours site is open to receive waste

Additional safety signs will be displayed on site as required by the site risk assessments

8.0 CLOSURE

A site condition report will be kept updated which will be used in event of closure to demonstrate prevention or minimisation of land contamination

This record will include design, construction, inspection monitoring and maintenance and failure records for pollution prevention. Also spills and incidents and how they have been dealt with. Any failure or other non-conformances and the action taken as a result.

9.0 COMPLAINTS

A complaint file is kept in the main office which will contain details of each incident which was necessary to investigate. This information will include details of the cause, how the impact of the activity of complaint is minimised, details of the cause of the problem, and steps taken to avoid a repetition of the incident.

A system of communication to those who made complaint will be kept which will also be followed up by any necessary changes to the Environmental Management System.

10.0 COMPETENT PERSONS AND TRAINING

Either an appropriate holder of a Certificate of Technical Competence or provisionally for 2 years a person working toward this qualification will manage the site. Continuing competence will be demonstrated by passing a periodic assessment. A suitably qualified locum may be used when necessary.

A record will be kept in the site diary of the competent person who is available during the operational hours for any given day.

Reference will be made to a minimum attendance standard as necessary to ensure there is adequate management control.

Relevant convictions - at the date of this Working Plan no employee of Drurys Environmental Services Ltd has been convicted of a relevant offence.

A staff training file will be kept which will be kept updated with personnel and their individual roles within the organisation including a job specification and relevant training required including operating plant and machinery.

11.0 EMMISSIONS AND GENERAL SITE MONITORING

Control of mud and debris:

Mud on site - The surface of most operational areas of the site is covered with concrete or hardstandings to prevent mud being deposited on the approach roads.

Road vehicles will not track through areas where sorted waste is stored. However, in the event of the deposit of mud on the public highway, it will be cleaned with a mechanical vacuum sweeper.

Potentially polluting leaks and spillages of waste:

Waste liquids, and sludges will be kept in a segregated area and any containers used for such waste will be kept in a bunded area. Regular checks will be made for any leaks or spillages.

Control and remediation measures:

In the event that a spillage occurs when waste is deposited in the tipping area the spillage action plan will be implemented-whereupon spill kits will be deployed to soak up any liquids which will in turn be placed into sealed containers in the quarantine area. The quarantine waste will then be disposed of at a suitably licensed facility, within 72 hours and the event will be recorded in the site diary. Minor or insignificant leaks or spills may be covered by suitable 'housekeeping' routines, as a *de minimus* measure.

All wastes will be deposited handled and stored within the building apart from inert wastes. Therefore any spillages that do occur will also be contained within the building, the drainage for which runs to a sealed tank.

Fires on site:

Naked flames and smoking are not allowed on site, other than in designated areas, near the workshop and site office.

No waste material shall be burned within the boundaries of the site except for waste wood that does not contain any dangerous substances which may be burned in the wood burner under an exemption (paragraph 5 of schedule 3 to the Waste Management Licensing Regulations 1994).

A suitable number, and types of fire extinguishers, will be kept on site.

Any fire at the site will be regarded as an emergency and immediate action shall be taken to extinguish it with the appropriate fire extinguisher or hose, provided that the person feels competent to tackle the fire. The site fire alarm will be used if necessary to evacuate the building or office.

In the event that the fire cannot be tackled with the equipment provided the Fire Brigade would be called.

All outbreaks of fire will be notified to the Environment Agency.

A Fire Prevention Plan (FPP) for the site can be referred to by all relevant persons.

Control, monitoring and reporting of dusts, fibres and particulates:

All site operations will be carried out to minimise the creation of dust. Please see dust management plan (appendix 12) for further details of measures taken on site including use of sprinklers and a water bowser which will be used to spray the site roads, storage, loading and any other areas, which may be prone to dust.

No wastes containing significant proportions of dust, fibres or particulates will be accepted at the site.

Sheeting of vehicles – all vehicles carrying waste loads off site will be securely sheeted before leaving the site.

Dust screens may be erected on or around the trommels and other machinery to effectively control dust if necessary.

Staff supervising individual waste handling operations will undertake visual monitoring of aerial emissions during the carrying out of those operations.

In the event emissions are released or are likely to be released outside the site boundary, all operations will cease and measures will be taken to suppress them. The incident and any remedial action will be recorded in the site diary.

A sprinkler system or other suitable equipment within the building will be used to suppress any dust emissions inside.

The water bowser and/or road sweeper will be used to suppress any dust emissions from outside areas.

Odour control:

All incoming waste will be subject to the acceptance procedures as detailed in section 2. If any waste exhibiting offensive odours is deposited on site it will be placed in the container for rejected waste or removed from the site immediately to a suitable disposal site. An odour management plan-see **Appendix 7** will be used to monitor smells on site and the procedures are outlined in that document.

Control and monitoring of noise:

It is not anticipated that site operations will cause a noise nuisance due to the scale and location of the operation.

No plant causing excessive vibration will be used on site. Although a mobile concrete crusher will be used on site when required.

Not withstanding the need to comply with maximum agreed noise levels, measures shall be taken to control and minimise the levels of noise from operations on the site.

Any complaint of noise will be investigated and monitoring locations agreed, the results of which will be recorded in the site diary.

A noise monitoring plan will be used on site and kept updated-see **Appendix 6**

Control of pests birds and other scavengers:

Vermin/insect/bird control – In the unlikely event that vermin present a problem, a recognised pest control contractor will be brought in to rectify any problems encountered.

The site will be inspected for the presence of vermin, and the results of the inspection noted in the Site Diary/Inspection Form (**Appendix 3**).

Any remedial action will be recorded, along with the location of bait boxes etc.

Control of litter:

The site surface and surrounding areas will be inspected daily when the site is in operation, and debris will be swept as required and placed in a skip.

Any litter that does escape the building, and is caught by the site fence / hedging, will be removed before the end of the working day on which it is discovered.

12.0 SITE RECORDS AND ACCESS

Security and availability of records:

The site office is located within the office premises on the site, and all records will be stored and maintained here for a minimum of 2 years.

The records held on site, detailed throughout this Environmental Management System, will be maintained and made available for inspection by the Environment Agency on request. The list below details the relevant site documents.

- Waste Management Licence/Permit

- Environmental Management System and supporting documents
- Site Diary
- EA inspection reports
- In-house inspection sheets
- Duty of Care Transfer Notes or electronic versions(retained for 2 years)
- Electronic version of waste inputs and output information
- Waste rejection form
- Accident book

Documented procedures and records for the identification, collection, storage and disposal of waste have been established

The following details will be recorded using an electronic method for every load deposited at the site:

(i) The date of delivery.
(ii) The type and quantity of waste (in yards).
(iii) The carriers name or driver name.
(iv) Vehicle registration number.
(v) Origin of waste

The following details will be recorded for all deposits of unauthorised waste at the site, and will be forwarded to the Environment Agency on request:

(i) Date of deposit.
(ii) A description of the waste.
(iii) The quantity of waste (in yards).
(iv) The carrier's name and vehicle registration.
(v) Reason for the rejection of waste and action taken.
(vi) Origin of waste

The details will be recorded on a Waste Rejection Form **Appendix 4**

The following details will be recorded for every load of waste leaving the site:

(i) The date and time of removal.
(ii) The type and quantity of waste (in yards).
(iii) The destination waste management site or exempt facility.
(iv) The name of the carrier removing the waste.

The details will be recorded on the computer software programme in use at any one time which is currently known as Waste Logics.

A summary of waste types and quantities deposited at and removed from the site will be forwarded to the Environment Agency at intervals specified in the Waste Management Licence or permit for the site.

The outcome of all inspections of hard-standing areas, push walls, drainage channels etc. will be recorded on the Site Inspection Form (including action taken or proposed).

Visitors to the site will sign the visitor's book upon arrival and exit stating the purpose of their visit and whom they represent.

Waste quantity measurement systems:

The site has a weighbridge in place, which is to be utilised, however in the event of a power failure, the weight of loads will be calculated using weight conversion factors (**Appendix 2).**

Whereas

a) inert soil wastes will equate to 1.5 tonne per cubic yard
b) hardcore will equate to 1.0 tonne per cubic yard
c) domestic waste will equate to 0.2 tonne per cubic yard
d) commercial waste will equate to 0.3 tonne per cubic yard.
e) Green waste will equate to 0.1 tonne per cubic yard

Access to Information:

Staff and contractors are made aware of the waste permit requirements and will have full access to hard copies or those in electronic format of this Environmental Management System and supporting documents. A full explanation of the documents will be made to those that need further clarification to enable a full understanding.

DOCUMENT B

Fire Prevention Plan

Drurys Environmental Services Ltd

June 2021

Version 8

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1.Purpose

The purpose of this document is to identify potential fire hazards, detail the controls implemented to prevent fires and the actions taken to reduce the impacts should there be a fire on site.

This plan has been prepared in conjunction with the format prescribed by the Environment Agency and detailed in the Environment Agency Guidance Notes.

2.Scope

This Fire Prevention Plan is applicable for Drurys Environmental Services, Folgate Road, Lyngate Industrial Estate, North Walsham, Norfolk, NR28 0AJ and adjoining Land on Cornish Way Business Park.

3.Management Responsibilities

3.1 The Company Directors and Site Manager

- Ensure the effective implementation of the Fire Prevention Plan.
- Allocate sufficient resources to ensure the Fire Prevention Plan can be implemented without causing implications to other operations.
- Ensure site staff are trained and have a basis level of competence to manage the arrangement for fire prevention and fire protection.
- Monitor the overall effectiveness of the Fire Prevention Plan through planned site inspections and record any findings.
- Review and update the Fire Prevention Plan as required.

3.2 The Site Operatives

- Follow operating instructions and report discrepancies between these instructions and the work to the site manager
- Maintain the fire prevention controls implemented by Drurys Environmental Services (as detailed in this Fire Prevention Plan).
- Report any activity or events which could jeopardise the site Fire Safety Strategy

4.The Site

4.1 The Site Location

Drurys Environmental Services, Folgate Road, Lyngate Industrial Estate, North Walsham, Norfolk, NR28 0AJ and Adjoining Land on Cornish way Business Park North Walsham NR28 0FE.

The site is located North West of North Walsham Town Centre on the Lyngate Industrial Estate. It is in close proximity of the B1145 and has a local road (Lyngate Road) run parallel along the Northern boundary. Access is via the Eastern side of the site which brings you onsite straight into the operational center.

The inert waste processing site is located nearby at end of private road on Cornish Way Business Park as outlined in red on plan below.

Drury Environmental Services have a throughput maximum of approximately 750000 tonnes of waste each calendar year with an average of 135 tonnes each working day (220 days). This waste is made up of Mixed construction and demolition waste, mixed municipal waste and soil/stones. The site has listed in its Environmental Management System maximum storage the following amounts:

- 50000 tonnes of Inert waste
- 3000 tonnes of Non-hazardous waste including plastics, paper, wood, card and green waste etc
- 250 tonnes of Metals.
- 10 tonnes of mirror entry (WFD) hazardous waste

5.Using the Fire Prevention Plan

All staff are aware that a copy of the fire prevention plan is kept in the office. All staff are required to attend an annual meeting with regards to the contents of the fire prevention plan. Any visitors or contractors working on site are required to firstly sign in at the office and to read and then sign the site safety rules which includes any fire prevention and instructions of what to do in the event of a fire on site. Any new staff are required to

complete an induction process which includes the fire prevention plan and what to do in the event of a fire.

Emergency evacuations of the site are completed once every 6 months.

6.0 Fire Prevention Plan Contents

6.1 Activities at the site

All possible sources of ignition relating to the operations of the site have been included in the fire risk assessment. The possible sources are as follows.

Combustible of flammable waste including self combustion during storage
Smoking outside permitted areas
Electrical faults
Hot work
Machinery friction on hard surfaces
Shredding waste and associated processes

Hazardous materials are locked in a fire-resistant cabinet. Individual data sheets and risk assessments are also available. Flammable gas cylinders are kept in a caged area away from possible sources of ignition. The site plan includes two designated smoking areas.

6.2 Site Plans and Maps

Plandescil Plans to go here

Local Receptors

Within 1km of the site the following key receptors are located (see also plan showing these):

- Lyngate Industrial Estate spreads out to 600 metres to the South West of the site with approximately 60 business operating.
- The Town Drain runs adjacent to the boundary on the West side of the site.
- One residential property located 150 metres to the East.
- B1145 runs in a North/South direction 400 metres to the East.
- Lynfield Road housing development (500+ residual dwellings) 450 metres to the East and South East.
- The small hamlet village of Swaffield is located 1000 metres to the North East of the site.
- National rail line located 800 metres to the South West of the site.

These local receptors would be impacted by a large fire on site, however, the prevailing wind direction is South-Westerly, thus significantly reducing the likelihood of impact of air emissions to those receptors located South and west of the site. In a prevailing wind event, the receptors in a direct path of air emissions are the residential properties located 600 metres to the North East towards Swafield.

The remaining land to the North of the site is mainly used for agricultural production. There are no protected habitats within 1km of the site.

7. Manage Common Causes of Fire

7.1 Arson

The site is protected from trespassers out of hours by a perimeter fence, hedge, town drain, locked gates and CCTV.

7.2 Plant and Equipment

All plant is inspected and recorded on a daily check basis and subject to an ongoing maintenance schedule. Mobile plant is parked away from combustible waste. Some equipment has integral fire suppression and there are adequate fire extinguishers attached to or nearby other machinery and equipment.

7.3 Electrical Faults Including Damaged Or Exposed Electrical Cables

All electrical wiring is checked regularly by a registered electrical contractor and portable appliance testing is also carried out annually.

7.4 Discarded Smoking Materials

There are two designated smoking areas in the Yard a significant distance from combustible waste. Staff are aware of the smoking areas included in the induction process. Subcontractors and customers are made aware of the smoking areas when they enter the site as part of the signing in procedure.

7.5 Hot Works

Hot works is not regularly part of Drury's every day activities. Individual risk assessments and extra control measures are assessed before any such work can commence.

7.6 Industrial Heaters

Not Applicable

7.7 Hot Exhausts

Fire watch is completed at regular intervals during the day. The first visual check is completed before morning break at 10am. The second check is completed before lunch at 1pm. The third is completed before afternoon break at 3pm and finally at the end of the day approximately 4.30pm-5pm and entered in the daily site diary.

7.8 Ignition Sources

The wood burner is located in bay 7 which is more than 6 metres away from combustible and flammable waste.

7.9 Batteries And ELV's

Non Applicable as not ELV site

7.10 Leaks And Spillages Of Oils And Fuels

Not Applicable as not ELV site

7.11 Build-Up Of Loose Combustible Waste, Dust And Fluff

Daily vehicle and plant checks are completed and recorded. The picking line is checked and where necessary cleaned regularly (every break time at 10am, 1pm, 3pm and end of day 4.30pm-5pm). The Yard is tidied and swept on a daily basis and where necessary a water bowser is deployed at regular intervals to dampen down the dust.

7.12 Reactions Between Wastes
All waste loads are checked for signs of items such as batteries and it is ensured that segregation of certain waste types is done including use of the quarantine area away from the waste processing area.

7.13 Deposited Hot Loads
Any such loads will be checked carefully and use made of quarantine area as necessary

8. Prevent Self-Combustion

8.1 Manage Storage Times

Some materials can spontaneously combust. This risk increases when materials are stored for prolonged periods.

The storage time limits are as follows:

Combustible waste type	Maximum storage time
Non shredded	Up to 6 months
Baled and compacted wastes (if kept longer the bales need to be broken and re-baled)	Up to 6 months
Shredded	Up to 3 months

The limits are adhered to at all times and checked on a weekly basis by the Yard Manager and/or Yard Supervisor. This is controlled and monitored by using stock rotation.

Stock rotation is used when placing new materials in each bay. This is completed in a methodical manner. Working from left to right along the bays.

8.2 Monitor And Control Temperature

The stored waste is checked at regular intervals at least weekly (checks are completed using random sampling) using a temperature probe. A record of temperatures is taken and if levels are increasing suitable extra measures are then undertaken and recorded. All waste is removed from site within the specified maximum storage times.

If the waste has undergone any treatment on site such as shredding or baling further temperature checks are completed using a temperature probe. The waste is checked immediately after processing then again at the end of the day.

Detection of hotspots and training for detecting and managing hotspots.

Waste piles are turned routinely as part of the Yard management process. A site diary is used daily to identify possible external heating during the hotter months. If the weather is particularly hot the waste piles are moved to a shaded area.

8.3 Waste Bale Storage

Cardboard is baled on site. The bales are checked for hotspots after they have been through the baling process. Further temperature checks are made on a weekly basis assessing for any hotspots. The sampling protocol is 10% of all bales.

9. Manage Waste Piles

Pile sizes are minimised by the width of the bays and fully comply with the maximum pile sizes as specified by the guidance notes.

9.1 Maximum Pile Sizes

Waste Type	Loose and more than 150mm	30 to 150mm or baled	Less than 30mm
Tyres and Rubber	450 cubic metres	300 cubic metres	300 cubic metres
Wood	750 cubic metres	450 cubic metres	300 cubic metres
Green Waste	750 cubic metres	450 cubic metres	450 cubic metres
Plastics	750 cubic metres	450 cubic metres	300 cubic metres
Paper and Cardboard	750 cubic metres	750 cubic metres	450 cubic metres
Textiles	750 cubic metres	750 cubic metres	400 cubic metres
WEEE containing Plastics including Fridges, Computers and Televisions	450 cubic metres	450 cubic metres	450 cubic metres
Metals other than WEEE	750 cubic metres	450 cubic metres	450 cubic metres

For all waste piles the maximum height allowed is 4 metres. The height is measured using the longest measurement between the base of the pile and the top.
For all waste piles the maximum length or width allowed is 20 metres.

For any waste piles containing a mixture of combustible wastes the maximum limit is based on the type of waste that makes up most of a mixed pile.

All waste piles adhere to the above restrictions.

10. Where Maximum Pile Sizes Do Not Apply

Not Applicable

11. Prevent Fire From Spreading

11.1 Separation Distances

The combustible waste piles are separated alternatively by the distance between the bays of a distance greater than 6 metres. The empty gas cylinder storage is completely segregated in another area of the yard next to the car parking bays (distance exceeding the 6 metre requirement). The flammable liquids are kept in a lockable flame resistant cabinet in the workshop (distance exceeding the 6 metre requirement).

11.2 Fire Walls And Bays

The storage bay walls are configured in such a way that they will act as fire breaks to minimize the spread of fire across the site. Predominantly the walling for the bays are constructed out of interlocking concrete blocks.

By using information provided by Legato™ Interlocking Concrete Block suppliers the radiated insulation properties of the blocks are sufficient to prevent transfer of fire via radiation through the blocks. These are listed giving a 120 minute integrity. Therefore, risk of a potential fire spreading across the storage bays would be because of winds fanning the flames between the bays.

12. Quarantine Area

A designated area within the skip storage area will be used or other suitable such areas within the processing area or vehicle parking area as a temporary facility for storage.

13. Detecting Fires

A manual fire alarm system will be in operation covering the waste processing areas.

14. Suppressing Fires

A water system using the permanent supply of water from the attenuation pond and town drain will be utilised for supressing fires.

15. Firefighting Techniques

There are several items of heavy plant available for active firefighting. These include loading shovels and teleporters

There is at edge of site an attenuation pond and the town drain with ample water sources and a full water bowser at all times on site. A pumping system can be used from the town drain which is also used for dust suppression on site.

The company has adequate finances for upkeep of above.

A combination of firefighting techniques would be used to extinguish the fire. These include:

1. Applying water to cool unburned material and other hazards.
2. Separating unburned material from the fire using heavy plant.
3. Separating burning material from the fire to quench it with hoses.

16. Water Supplies

The site has access to water supplies. There is access to hydrants (see plan 22209/1009), stored water from attenuation pond and running water from town drain alongside the site and a mains water supply. The following calculation has been completed for the largest waste pile catching fire which would be the worst case scenario.

The site would need at least 2877 litres a minute for a minimum of 4.3 hours for a 432 cubic metre pile of combustible waste.

17. Managing Fire Water

The waste sorting yard area is 100% concrete and is contoured in such a way to allow surface water to be contained within the boundaries of the site before it passes through an interceptor and discharged to the drain.

The site is bounded by a raised edge consisting of kerbs or precast concrete lips. The outside process area is approximately 5000m^2 and has the potential to contain 15cm of fire water following the sealing of drainage gullies as detailed on the site plan. Therefore, the containment for fire-fighting water can be calculated as:

Containment on site: 5000m^2 x 0.15m = 750m^3 which is equivalent of 750,000 litres

There is an increased potential for water to escape from the drainage gully that is in the middle of the yard. This gully will be sealed off with the gully seal in the emergency response kit located at the weighbridge.

There is also a potential for waters to escape the site into the Town Drain from the process area adjacent to the exit route. In any emergency event where there was a potential for waters to escape, temporary bunds will be made with woodchip/soil from the stockpiles. In any worse case scenario, the drain will be blocked upstream from the road culvert using inert soils from site to mitigate the potential pollution situation further downstream.

Any excess fire water would be tankered off site if deemed necessary after an emergency event. Drurys Environmental Services has contacts with local companies offering waste water tanker services.

There is one area of the site where the impermeable surface is not complete. It is located at the far end of the site and is used for empty skip storage.

In an event of a fire , the fire water would not flow to this area due to the higher level in that part of the yard.

18. During And After An Incident

Arrangements have been made with other nearby waste companies for diverting waste which are included in our sites disaster recovery plan.

We would also use the press leaflets and social media to inform nearby receptors of the situation also outlined in our disaster recovery plan.

Due to our previous experience of dealing with a major fire on site we also now have procedures for disposal of contaminated fire damaged waste and water. Isolation methods are also adopted on site to prevent water run off following a fire into mains drainage and town drainage systems.

19. Submitting The Fire Prevention Plan

A copy of the fire prevention plan has been sent to the Environment Agency.

Risk assessment for Drurys Environmental Services Folgate Road site (waste transfer/treatment)

Standard Facility:	Waste Operation: Household, Commercial and Industrial Waste Transfer Station with treatment
Location:	Applies to all potential locations.
Location of environmentally sensitive sites (km / m):	Greater than 50m (see below)
Risk assessment carried out by:	Kevin Robotham
Date:	10-Jun-21

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - The storage and repackaging of waste (D15, R13, D14) and treatment consisting only of manual sorting, separation, screening, baling, shredding, crushing or compaction (D9, R3, R4, R5).
Parameter 2	Permitted waste types - Non hazardous Household, Commercial and Industrial Waste
Parameter 3	Quantity of waste accepted at the facility: <75,000 tonnes per annum.
Parameter 4	The quantity of tyres stored at the facility shall not be more than 50 tonnes
Parameter 5	All wastes shall mostly be processed inside a building
Parameter 6	All waste shall be stored in a building or outside within a secure area
Parameter 7	All waste shall be stored and treated on an impermeable surface with sealed drainage system, except for inert waste which may be stored and treated on hard standing.
Parameter 8	The only point source discharges to controlled waters or groundwater, are surface water from the roofs of buildings and from areas of the facility not used for the storage or treatment of wastes.
Parameter 9	The activities shall not be carried out within 500m of a European Site (candidate or Special Area of Conservation, proposed or Special Protection Area or Ramsar site) or a Site of Special Scientific Interest (SSSI);
Parameter 10	The activities shall not be carried out within 50m of any well, spring or borehole used for the supply of water for human consumption. This must include private water suplies
Parameter 11	The activities are not carried out predominantly using a limited number of the permitted waste types in a manner which significantly increases any of the risks compared to the generic operation of this type of facility, for example predominantly storing wastes which presents a significant increase in fire risk.

Abbreviations:	SR - Standard Rule SR (emissions of substances not controlled by emission limits - buildings) - emissions of substances shall not cause pollution, with appropriate measures: bulking, transfer or treatment in a building; storage in a building or secure container; waste storage and treatment on impermeable surface with sealed drainage (except); specified waste storage and treatment on hard standing or on impermeable surface with sealed drainage.

Data and information				Judgement				Action (by permitting)
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management
What is at risk? What do I wish to protect?	What is the agent or 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 this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	High	Medium	High	Permitted waste types do not include dusts, powders or loose fibres but the treatment activities will produce particulate matter so a high magnitude risk is estimated. There is potential for exposure if anyone is living or working close to the site (apart from the operator and employees)	Adherence to details contained in Dust Control Scheme document (separately provided)
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	Low	Local residents often sensitive to dust.	Adherence to details contained in Dust Control Scheme document (separately provided)

Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Medium	Medium	Medium	Local residents often sensitive to litter.	Appropriate measures will include carrying out a litter pick in affected areas outside the site on a regular basis .
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	Medium	Road safety, local residents often sensitive to mud on roads.	Appropriate measures will include carrying out a litter pick and use of a roadsweeper in affected areas within and outside the site.
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Medium	Medium	Medium	Local residents often sensitive to odour.	Adherence to details contained in Odour Management Plan (document provided separately)
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	Medium	Local residents often sensitive to noise and vibration	Adherence to Noise Monitoring Plan (see separate document)
Local human population	Scavenging animals and vermin	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Medium	Medium	Medium	Permitted wastes may attract scavenging animals including vermin and birds. Specified low-risk wastes stored outside may become nesting / breeding sites.	Use of vermin control contractor with regular visits and reports

Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Medium	Medium	Medium	Insect pests can multiply on permitted wastes, particularly in summer months	As above using a pest control contractor
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	Low	Permitted waste types are non-hazardous so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	Controlled within Environmental Management System (separate EMS document)
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	Medium	Permitted waste types are non-hazardous so only a medium magnitude risk is estimated.	As above contained within EMS
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Medium	Medium	Permitted waste types do not include sludges or liquids and are non-hazardous so only a medium magnitude risk is estimated.	As above contained within EMS document

Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	Medium	Risk of accidental combustion of waste is moderate.	As above contained within EMS document
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	Medium	Medium	Permitted waste types do not include sludges or liquids so only a medium magnitude risk is estimated. There is potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain.	Controlled by details within EMS document
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Low	Low	Waste types are non-hazardous so harm is likely to be temporary and reversible.	As above details within EMS document
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	Medium	Medium	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above. Also the activities shall not be carried out within 50m of any well, spring or borehole used for the supply of water for human consumption. This must include private water suplies
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	Medium	There is a potential for contaminated rainwater run-off or leachate from permitted waste types.	As above, or within 50m of any well, spring or borehole used for the supply of water for human consumption. This must include private water suplies

Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	Low	Unlikely to occur, but might restrict recreational use.	As above
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 waters.	Low	High	Medium	Waste fires are not common but approximately 300 fires pa linked to waste activities. Impact on health and amenity can be significant for many days or weeks.	See Fire Prevention Plan provided separately
All surface waters close to and downstream of site.	Serious Fire	Loss of amenity, deterioration of water quality	Direct run off of fire water across site to surface waters.	Low	High	Medium	Waste fires are not common but approximately 300 fires pa linked to waste activities. In event of fire, fire water can be produced for days/ weeks. Contaminated firewater run-off can kill fish and aquatic life.	See Fire Prevtion Plan provided separately

Notes: Red triangle indicates comment containing supporting information

Yellow columns contain drop down menus that allow automatic evaluation of risk in green column

RISK ASSESSMENT 2

Soil Treatment Risk Assessment

Standard Facility:	Waste Operation: Treatment of waste to produce soil, soilsubstitutes and aggregate
Location:	Applies to all potential locations.
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	Kevin Robotham
Date:	10-Jun-21

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - The storage of waste (R13) and treatment to produce soil, soil substitutes roadstone and aggregate(R3,R5).
Parameter 2	Permitted waste types - Non Hazardous as listed in rules other than waste consisting solely or mainly of dusts, powders or loose fibres or waste in liquid form
Parameter 3	Quantity of waste accepted at the facility: <75,000 tonnes per annum.
Parameter 4	The activities shall not be carried out within an Air Quality Management Area (AQMA) designated for particulate matter in the form of PM10.
Parameter 5	Specified waste shall be stored and treated on an impermeable surface with sealed drainage system when located within groundwater source protection zones 1 or 2 or on hard standing.
Parameter 6	The only point source discharges to controlled waters or groundwater, are surface water from the roofs of buildings and from areas of the facility not used for the storage or treatment of wastes.
Parameter 7	The activities shall not be carried out within 500m of a European Site (candidate or Special Area of Conservation, proposed or Special Protection Area or Ramsar site) or a Site of Special Scientific Interest (SSSI); 250 metres with the presence of great crested newts, where it is linked to the breeding ponds of the newts by good habitat; 50 metres of a site that has relevant species or habitats protected under the Biodiversity Action Plan that hte Environment Agency considers at risk to this activity or 50 metres of a National Nature Reserve (NNR), Local Nature Reserves(LNR), Local Wildlife Site (LWS), Ancient woodland or Scheduled Ancient ...
Parameter 8	The activities must also be 10 metres from any watercourse and be 50 metres from any spring or well, or of any borehole not used to supply water for domestic or food production purposes or 50m from any spring or well or any borehole used for the supply of water for human consumption. This must include private water supplies.

Abbreviations: SR - Standard Rule

Data and information				Judgement			Soil treatment RA from EA site	Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or 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 this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).

Data and information				Judgement			Soil treatment RA from EA site	Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or 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 this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	High	Medium	High	Permitted waste types are inert and non hazardous and do not include dusts, powders or loose fibres and have a low potential to produce bioaerosols, but the treatment activities will produce particulate matter so a high magnitude risk is estimated. The permitted level of throughput and potential size of the facility means there is potential for exposure if anyone is living or working close to the site (apart from the operator and employees). There is potential for increased dust generation from permitted activities during prolonged dry periods e.g. summer months.	Adherence to details contained in Dust Control Scheme document (separately provided)	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	High	Low	Medium	As above. Local residents often sensitive to dust.	As above	Low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	Low	Local residents often sensitive to litter, however permitted waste types have low litter potential.	Appropriate measures will include carrying out a litter pick in affected areas outside the site on a regular basis	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	Medium	Road safety, local residents often sensitive to mud on roads.	As above plus use of a roadsweeper in affected areas wityhin and outside site areas	Low

Data and information				Judgement			Soil treatment RA from EA site	Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or 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 this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Low	Low	Local residents often sensitive to odour, however permitted waste types have low odour potential.	Adherence to details contained in Odour Management Plan (document provided separately)	Very low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	Medium	Local residents often sensitive to noise and vibration	Adherence to Noise Monitoring Plan (see separate document)	Low
Local human population	Scavenging animals and vermin	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	Low	Permitted wastes unlikely to attract scavenging animals and birds but may become nesting / breeding sites.	Use of vermin control contractor with regular visits and reports	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	Low	Permitted waste types unlikely to attract pests.	As above using a pest control contractor	Very low

Soil treatment RA from EA template

Data and information				Judgement			Soil treatment RA from EA site	Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or 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 this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Low	Low	Permitted waste types are inert and non hazardous so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	Controlled within Environmental Management System (separate EMS document)	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Low	Low	Permitted waste types are inert therefore only a low magnitude risk is estimated	As above contained within EMS document	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Low	Low	Permitted waste types do not include any flammable materials so a low magnitude risk is estimated.	As above contained within EMS document	Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or fire fighters. Pollution of water or land.	As above.	Medium	Low	Low	As above.	As above contained within EMS document	Low

Data and information				Judgement			Soil treatment RA from EA site	Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or 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 this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Low	Low	Low	Permitted waste types do not include sludges or liquids so only a medium magnitude risk is estimated. No point source emissions to water are permitted, but there is potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain.	Controlled by details within EMS document	Very low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Low	Low	Low	Waste types are non-hazardous and inert so harm is likely to be temporary and reversible.	As above	Very low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Low	Low	Low	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above. Also activities must be 50 metres from any spring or well, or from any borehole not used to supply water for domestic or food production purposes or 50m from any spring or well or any borehole used for the supply of water for human consumption. This must include private water supplies	Very low

Soil treatment RA from EA template

Data and information				Judgement			Soil treatment RA from EA site	Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or 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 this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole	Transport through soil/groundwater then extraction at borehole.	Low	Low	Low	Permitted wastes unlikely to contaminate groundwater.	As above	Very low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	Low	Unlikely to occur, but might restrict recreational use.	As above	Very low

Notes: Red triangle indicates comment containing supporting information

Yellow columns contain drop down menus that allow automatic evaluation of risk in green column

APPENDIX 1

DRURY'S
ENVIRONMENTAL SERVICES

Site Safety Rules

Site rules are made for your safety and to maintain compliance with the law. They are all made for a reason and each one is a condition of working on site. Non compliance with these rules may result in you being removed from the site and in some cases may make you liable for prosecution under health and safety law.

The site is very busy and has moving vehicles in most areas. Pedestrians must keep to safe walkways where they are available and must always keep a safe distance from moving vehicles.

- All visitors and contractors must visit the site office to sign in and out. To visit the site you must have a site contact who has responsibility for your safety and will allow you to go on site.
- The speed limit on site is a maximum of 10mph and drivers must drive at an appropriate speed for the conditions at all times.
- Do not use mobile phones while driving on site.
- All personnel visiting site must wear a high-visibility jacket and hard hat as a minimum.
- All contractors working on site must wear a minimum of high visibility work wear and suitable safety footwear. You must provide other personal protective equipment such as safety glasses and or safety goggles, hearing protection or dust masks etc if required by a risk assessment.
- Contractors must not enter the waste transfer site or the maintenance areas unless authorised by your site contact.
- Due to the presence of flammable materials on site, smoking is restricted to the smoking areas only.
- All accidents and incidents on site must be reported immediately to the Yard Manager (including any first aid provision, near misses or damage accidents).
- Do not operate any machinery or drive any site vehicles unless you have been authorised to do so by your site contact and have the appropriate license and training.
- Operators of specific machinery, such as MEWP's (Mobile Elevated Working Platforms) must provide evidence that they have the appropriate training certification (IPAF or similar) before operation of the equipment.
- All electrical equipment brought on site must have suitable up to date test certificates.

I have read, understood and will abide by these site rules.

Name (printed) .....

Signed .....

Date .....

APPENDIX 2

Density conversion factors for waste

These density conversion factors were developed by the Environment Agency for the 1998/99 commercial and industrial waste survey in England and have since been used across the UK by all of the Agencies including SEPA. The factors were derived from a number of different sources including published research, advice from the waste management industry and some original research at the time. There is a factor for each of the EWC codes in the List of Wastes.

The factor for mixed construction waste 17 09 04 was changed in January 2014 from 0.42 to 0.32. This was agreed at the UK level following a desktop study carried out on behalf of the UK Agencies. The new factor was calculated using actual weight and volume data obtained from the waste management industry.

The factors for non-hazardous waste are used in the edoc database.

How to calculate the weight of waste in a bin using a conversion factor

Weight calculation

For waste code (EWC) 200301:

Assumed density factor	0.26
x Compaction factor for container	1
x Number of containers	1
x Volume of a container	1100 litre(s)
x Proportion of total waste	100%
= Weight estimate	**286 kilogram(s)**

APPENDIX 3.

DRURY'S
ENVIRONMENTAL SERVICES

Site Diary

Item	Week commencing:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		Open:	Open:	Open:	Open:	Open:	Open:
		Close:	Close:	Close:	Close:	Close:	Close:
1	Name of Site Supervisior						
2	Road Conditions						
3	Weather Conditions Dry/Wet/Windy/Temperature						
4	Site Inspection Completed-Perimeter/Litter Check	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
5	Any maintenance Undertaken	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
6	Plant Breakdowns/Vandalism	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
7	Health, Safety & Environmental Emergencies	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
8	Non Conforming Waste/Rejected Loads	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
9	Waste within storage bunds	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
10	Complaint's Regarding Site Operations	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
11	Any Environmental Issues - Odour, Litter, Dust, Noise	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
12	Any Pest Activity - Rats/Birds	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
13	Enforcing Officer On Site	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
14	Technicall competent Person On Site	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
15	Waste within maximum storage capacity	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No

Please enter any additional information on the reverse of the sheet

APPENDIX 4.

WASTE REJECTION

1 INTRODUCTION

This procedure details the measures to be taken in the event of a consignment of waste being rejected.

Any Load May Be Rejected At The Weighbridge Office For Any Of The Following Reasons:

(i) Incomplete or unsatisfactory documentation i.e. inadequate waste description.

(ii) Physical appearance of waste material not fitting description on Transfer Note.

(iii) Burst sacks or un-netted load.

(iv) Presence of free liquid in waste.

(v) Waste not pre-conditioned i.e. dust dampened etc.

(vi) Adverse weather conditions in the tipping area, i.e. high winds.

The above list is not exhaustive and DES reserve the right to reject, cancel or reschedule loads at any time. Remember if there is any doubt seek clarification from the office.

2 PROCEDURE

2.1 Inaccurate Paperwork

When a load is rejected at the weighbridge resulting from inaccurate documentation the Site Manager must be informed. The Site Manager, or the authorised deputy, will then communicate with the office and the customer advising that the load has been rejected and giving reasons why. The details will then be entered into the site log book.

2.2 Non-conforming Waste

When a load is rejected by the Site Manager due to non-conformance with documentation the Site Manager or the authorised deputy will communicate with the office and/or the Environment Agency and follow any instructions they may issue. The details will be entered on an incident report form and forwarded to the relevant responsible person and again entered into the site log book.

2.3 Temporary Closure of Site - To All or Particular Waste Stream

If the site is unable to accept Waste then the office team will be notified immediately and customer will be notified by email or telephone giving the period of closure and as much notice as possible. Copies of this information will be sent to the responsible person/director.

3 RECORDS

Site Inspection/Diary form - retained for the life of the site.

EMAIL

To:

From:

Site:

Date:

Re: Waste Rejection/Non-Compliant Waste Load

The following vehicle was rejected at the above site

Date: *Time:*

Vehicle Registration No:

Customer:

Waste Type:

Reason for Rejection:

Office Informed: Yes/No
(If Yes contact name and time)

Customer Informed: Yes/No
(If Yes contact name and time)

EA Informed: Yes/No
(If Yes contact name and time)

Signed: ***Print Name:*** ***Date:***

APPENDIX 5.

Accident / Pollution Incident Management Plan

Created by: Kevin Robotham **Date: 24/6/2019**

Accident / Pollution Incident Management Plan Contents

A – Site Plan

The site plans reference 22209/1003 and 22209/301/302 show locations of the following items:

- **Site entrances and exits** available to the emergency services
- **Buildings**; the buildings and other main constructions
- **Drainage**; including
  - foul drainage (marked in orange/brown),
  - surface water drainage (marked in blue)

showing

  - the direction of flow and
  - the discharge points to the sewer, watercourse or soakaway.
  - The location of manhole covers and drains,
  - The location of stop and diverter valves and interceptors
- **Service mains**; the routes of
  - water supply, gas, electricity)
  - mains water stop tap, and gas and electrical supply isolating valves / switch.
- **Storage of hazardous materials**; eg oil and fuel tanks, chemical stores, raw materials, waste materials etc.
- **Process lines**; location and direction of main process lines/pipes.
- **Accident and emergency response items**; such as fire extinguishers, fire hydrants, fire water tanks / ponds, spill kits, sand bags, alarms, first aid kit etc.
- **Vulnerable receptors;** on site or adjacent receptors that could be affected by the site operations, such as porous / unmade ground, watercourses, springs, boreholes, ecologically sensitive sites, residential properties, schools, offices, hospitals etc.
- **Pollution control points**; such as inspection or monitoring points, bunds,.

- **Treatment**; location of any on site trade effluent or sewage effluent treatment plant.

B – Key Site and Emergency Contacts

This table contains information and contacts you may need in an emergency
(amend, as required, to suit your site).

SITE DETAILS			
Location: Folgate Road, Lyngate Industrial Estate, North Walsham, Norfolk			
Postcode: NR28 0AJ			
Site Access Grid Reference: TG281312			
SITE CONTACTS	Name	Office Hours (specify)	Out of hours
Owner:	Michael Drury	01692 405820 (0800hrs to 1700 hrs)	07831 600938
Waste Director::	Alister Wait	01692 405820	07836 62598
Transport Manager:	Richard Harris	01692 406511	07799880696
Site Supervisor:			
Security Contact:			
Landowner / Agent:			
EMERGENCY SERVICES		Office Hours	Out of hours
Emergency		999	999
Medical:			
Police:			
Fire:			
REGULATORS		Office Hours	Out of hours
Health and Safety Executive (HSE)			
Local Authority:		01263 513811	
Environment Agency (Local)		01473 706568	
EA (24 hour emergency hotline)		0800 80 70 60	
Natural England (for Wales, Countryside Council for Wales)		N/A	
UTILITY / KEY SERVICES	Name	Office Hours	Out of hours
Water undertaker:	A Water		
Sewerage undertaker:	A Water		
Gas supplier:	B Gas		
Electricity supplier:	B Gas		
Fuel/Oil supplier:	CERTAS		
Electrician:	Lighting and Electrical Services Ltd	07717741619	
Plumber:	JT Plumbing		
Locksmith:			
OTHER KEY CONTACTS	Name	Office Hours	Out of hours
Adjacent landowners:			
Neighbours:			
Specialist advisors:			

C - List of Substances and Storage Facilities

The following is a list of liquids, powders etc that are stored on site and could be harmful to the environment if they escape.

Material	Maximum Quantity	Type and size of storage	Type and size of Secondary Containment
Diesel	50000 litres	Above ground in 55000 litre integrally bunded tank	Concrete block retaining wall to 3 sides
Red diesel	4000 litres	Above ground in 5000 litre integrally bunded tank	None
Adblue			
Compressor fluid	10 litres	Metal cabinet in workshop	None
Screen wash	20 litres	Metal cabinet in workshop	None
Automotive gear oil	100 litre drums	Workshop	None
Various paints	2.5-5 litre cans	Metal cabinets/containers around site	None
Various greases and lubricants	5-25 litre containers	Metal cabinets/containers around site	None

D - Preventing Accidents / Incidents ….. and what to do if they happen

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Spillages			
Spillage during transfer, sorting, crushing and compaction of wastes.	Contamination of land, drains, groundwater and watercourses.	Inspect and validate all in-coming wastes. Remove hazardous liquids from wastes prior to processing. Train the staff	Follow the spill response procedure. It describes what to do in the event of a spill and where the kit is kept.
Spillage during delivery of oil or fuel.		Supervise fuel deliveries. Use drip trays and spill materials.	
Spillages during refuelling of plant and equipment.		Plant and equipment will be refuelled in designated areas with impervious surface and will use drip trays and spill materials.	
Spillages of liquids during maintenance of plant, vehicles and equipment		Work carried out in suitable areas with impervious surface and nearby spill kits	
Overfilling			
Overfilling of oil / fuel tanks during delivery.	Contamination of land, drains, groundwater and watercourses.	Stock level control checks, supervised delivery and high level alarms.	Spill response procedure as described above.
Failure of Plant or Equipment			
Leakages; due to faulty pipe work, valves, over-pressure, blockages, corrosion, severe weather, ground movement etc.		Daily visual inspection and completion of weekly inspection checklist record. Preventative maintenance regime.	

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
	Contamination of land, drains, groundwater and watercourses..	Any underground pipes and tanks will be tested for integrity. Insulation and protection of pipe work.	Spill response procedure as described above.
Puncture; of vessels and tanks etc due to impact – such as fork lift trucks.		Tanks and vessels generally located within / on secondary containment facilities. Storage locations of drums and non-permanent vessels protected by use of barriers or fencing. Movement of drums and containers using safe techniques.	
Fire			
Fire	Smoke and pollution, Firewater causes contamination of land, groundwater and watercourses.	Separation of incompatible materials and of combustible materials and ignition sources. Incorporation of fire breaks into site layout and containment of fire water. No smoking policy. Maintain tidy site and minimize stockpile of combustible materials. Fire training and emergency drills.	Fire procedure describing what to do in the event of a fire, including details about fire alarms, exit routes and muster points, responsible personnel such as a fire warden and the location and use of emergency fire equipment such as extinguishers, hoses, sand bags and drain covers.
Cross contamination			
Due to transfer and mixing of incompatible materials, drainage cross connections etc.	Explosion, smoke and pollution of air, Contamination of land, drains, groundwater and watercourses.	Maintenance of up to date drainage plan. Maintenance of inventory of substances with material property details. Procedure for contractors to work on site including induction training and permit to work. Fail-safe filling systems.	Fire procedure as described above.

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Flood			
Due to ingress of watercourse floodwater, blocked drains, burst water main, use of fire water.	Contamination of raw materials, buildings, land, drainage system, groundwater and watercourses with fire and flood water.	Maintenance of drains. Fitting of flap / non return valves on drains. Safe location for storage of hazardous materials.	Flood procedure describing what to do in the event of a flood warning such as installation of barge boards, use of sand bags, movement or protection of sensitive materials.
Failure of Services			
Due to failure of supply; water, electricity, gas supply and of sewerage system. Due to utility supply being struck and broken / cut.	Flooding, explosion with subsequent contamination of land, drains, groundwater and watercourses.	Provision of standby facilities. Maintenance of up to date plans showing location of utility services. Procedure for contractors to work on site including induction training and permit to work.	Utility supply failure procedure describing what to in the event of services supply failure such as manual shut down of process valves, start up of emergency generator, use of standby materials etc. Flood and fire procedure as described above.
Failure of Containment			
Failure of containment facilities due to land movement, impact, corrosion etc.	Contamination of land, drains, groundwater and watercourses.	Provision of secondary containment for hazardous liquids. Inspection of primary and secondary containment facilities.	Spill response procedure as described above.

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
		Integrity testing of tanks and bunds & pressure loss alarms.	
Vandalism			
Unauthorised entry and tampering or malicious damage to property, plant and equipment.	Contamination of land, drains, groundwater and watercourses.	Secure gate and perimeter fence. Site locked when un-manned, tanks and valves locked when not in use out of hours. Plant and equipment locked in secure storage out of hours. Security system installed including camera and recording facilities.	Spill response procedure as described above.

APPENDIX 6

LOVEN
acoustics

Date: 31st October 2017

Our Ref: LA/1442/01bR/ML

Land at Cornish Way Business Park
Lyngate Industrial Estate, North Walsham NR28 0FE

Inert Waste Processing Operations

Noise Impact Assessment

Client:

Drury's Environmental Services Ltd.
Folgate Road
Lyngate Industrial Estate
North Walsham
NR28 0AJ

Prepared by: .....

Martin Loven BSc (Hons) MIOA

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CONTENTS

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1. BRIEF FOR CONSULTANCY

1.1. Liaise with appropriate North Norfolk District Council officers to determine acceptable assessment methodology and criteria, and to establish closest noise sensitive receptors.

1.2. Travel to site in North Walsham and carry out baseline noise survey of existing noise environment affecting identified receptors during the quietest proposed operating time. Whilst on site measure specific noise from existing relevant plant, identified as a mobile concrete crusher and mobile trommel.

1.3. Using data gathered in the survey and plant noise data for the concrete crusher and trommel, together with new proposed aggregate washing plant, and in consideration of the latest scheme of mitigation proposed, predict the specific noise impact at receptor façades, and compare with agreed criteria.

1.4. Provide updated technical report presenting findings and conclusions, including any further recommended mitigating measures necessary to meet the local authority criteria, in a format suitable as a supporting document for a new retrospective planning application to Norfolk County Council for change of use.

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2. INTRODUCTION

2.1. Drury's Environmental Services is applying for planning permission for current and proposed inert waste processing operations on land off Cornish Way on the Lyngate Industrial Estate in North Walsham. The site is located just west of the company's main operational site off Folgate Road at the north-western edge of this large industrial area situated just north of the town centre.

2.2. The site has been operational in the current format for approximately three years but following the recent submission of a noise management plan for a previous planning application the company has committed to not start work on the site until 08:00, and finish by 17:00 during the week, with no weekend or bank holiday operations.

2.3. The operations of the inert processing involve the crushing of concrete waste and the sorting of excavated spoil into graded stone and soil. The processed waste material is then removed from site for re-use. As part of this new application it is also proposed to install aggregate washing plant adjacent to 2no. new settling lagoons at the eastern end of the site.

2.4. The site is surrounded on three sides by open farmland with the industrial estate to the east. Businesses on the estate generate a variety of noises associated with vehicle movements, plant and machinery, as would be expected, and although the company has received complaints for the operations, there are a number of other operations on the estate that may have been partly responsible for the noise heard. There are also currently building operations adjacent to the site with plant and machinery noise associated with the new construction.

2.5. However, local authority environmental officers were made aware of the complaints, and carried out subjective surveys at the complainant's property, during which specific noise from the application site was considered dominant.

2.6. Although a noise impact assessment and the aforementioned noise management plan have been submitted for a previous application for change of use, it was felt that the baseline noise data, obtained in 2012, was not sufficiently current, and the report offered insufficient mitigation options. The application was therefore refused and a new noise assessment commissioned for a fresh application to Norfolk County Council.

2.7. The current application includes changes to the layout and the installation of new equipment, as well as newer replacements for crushing and sorting plant previously assessed in the 2015 noise report (LA/1442/01a/ML).

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2.8. Loven Acoustics has consequently been commissioned to carry out a new revised assessment of the impact of noise from the existing crushing, sorting and washing operations on the closest residential receptors, and provide a report assessing the latest proposed mitigation measures in order to ensure that future operations do not have an adverse impact on the amenity of neighbouring residents.

3. NOISE LIMITING CRITERIA & RECEPTORS

3.1. Following discussion with Karen Baker, Environmental Health Officer at North Norfolk District Council, and technical consultee to the County planners for the application (hereafter referred to as the EHO), the general methodology and criteria were agreed for the noise assessment.

3.2. Essentially the requirement was that specific noise from the operation of the site would not raise ambient noise levels at the receptor boundaries by any significant degree. In other words, although it is deemed reasonable that specific noise from site operations may be audible, it should not dominate the noise environment to the extent that it could disturb residents or have an adverse effect on their amenity. In order for this to be achieved the EHO made it clear that this assessment would be expected to include a positive and permanent mitigation scheme to attenuate the noise of the operations.

3.3. The closest residential receptors agreed with the EHO requiring assessment have been identified as the following:

Receptor R1 – 'Wayside', a detached bungalow on Bradfield Road west of the site approximately 260m from the location of the concrete crusher and 300m from the trommel. This property is elevated from the site grade by approximately 7m and has line of sight to the site from its front aspect.

Receptor R2 – 'Prospero's Barn', a two-storey converted barn on Lyngate Road north-west of the site approximately 200m from the location of the concrete crusher to the closest curtilage and 240m from the trommel, although the closest façade of the house is a further 70m from the site. This property is elevated from the site grade by approximately 5m and has no line of sight to the site from the garden or ground floor of the house but probably does from first floor windows.

3.4. All other local receptors are deemed to be less affected by normal site activities than the above receptors.

3.5. Figure 2 in the appendix shows the location of the receptors in relation to the site.

4. EXISTING NOISE ENVIRONMENT

4.1. A survey of baseline noise conditions at the identified receptor properties was carried out on Friday 1st May 2015. The EHO was in attendance and ratified the measurement locations and methodology. It was noted that since her previous visit, when the specific noise from the crusher was considered dominant at the receptor R2 property, the company had constructed a significant, although temporary, earth bund, consisting of spoil material awaiting re-cycling between the crusher and the receptors.

4.2. A similar heap of earth spoil was positioned in front of the trommel, providing similar attenuation to that operation. It was acknowledged by the EHO that this had a significant impact on the attenuation of noise from the site operations, and this will be discussed later.

4.3. Broadband sound measurements based on $L_{Aeq,5mins}$ averages were taken on Friday 1st May 2015 during mid-morning. The measurement positions were as follows:

B1 – Close to the boundary of the Receptor R1 property at a height of 1.5m.

B2 – At the closest boundary of the Receptor R2 property at a height of 1.5m.

4.4. These positions were considered to accurately represent the ambient and background noise environment at the receptors.

4.5. Table 1 below shows a summary of the overall broadband results. The duration of the sample measurements was deemed sufficient to be representative of the true noise environment and was ratified by the attending EHO.

4.6. Figure 1 in the appendix shows the measurement positions relative to the site and receptors. An explanation of the noise terms is also shown in the appendix. .

Table 1. Summary of existing ambient noise levels at receptors

Measurement position and time range	dB L_{Aeq}	dB L_{Amax}	dB L_{A10}	dB L_{A90}
Position B1				
10:55 - 11:05	45.8	68.8	47.3	41.5
Position B2				
11:10 - 11:25	40.3	51.1	42.5	37.7

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4.7. Subjectively, the noise environment at both locations consisted of a steady background of distant traffic on the local road network punctuated with general activity noise emanating from the industrial estate. No activity was taking place at the application site during the noise measurements above, although further noise measurements at the B2 position were taken with both the trommel and crusher in operation, which will be considered later in this assessment.

4.8. It is worth noting here however that subjectively the plant operation was generally inaudible at the receptor boundary, which was concurred with by the EHO. This indicated that the temporary bunds erected on the site at the time, subsequently made permanent, did provide significant attenuation of noise at the receptor locations.

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5. SPECIFIC NOISE ASSESSMENT

5.1. In order to accurately predict the noise impact from the application site it was considered pertinent to obtain specific noise data for the items of plant. This required sound measurements close enough to the operating equipment to ensure that the measured sound was dominant. It is necessary to assess the noise impact in this way because if specific sound measurements were to be taken at the receptor locations, unless they are dominant it is not possible to isolate the specific noise from the ambient noise, generated by activities on other parts of the industrial estate and road traffic. This could then lead to a flawed conclusion as to the true noise impact from the site.

5.2. Having taken specific noise measurements close to the plant the values may be extrapolated back to the receptor properties, utilising calculated corrections for distance, ground absorption and any relevant shielding.

5.3. Subsequent to the aforementioned 2015 assessment, new crushing and screening plant has been installed to replace the older Hartl and Finlay equipment. It is also proposed that new aggregate washing plant will be installed at the eastern end of the site. It was therefore considered necessary to re-assess plant noise on site and take into account the inclusion of the new washing plant - based on manufacturer's noise data.

5.4. Therefore latest items of plant that require assessment are as follows:

- Metso Locotrak LT105 Concrete crusher - hopper fed machine reduces the size of waste concrete to dimensions where it can be recycled as a construction material.

- McCloskey R105 4.5x12 Screen Trommel - hopper fed mobile plant sorts material by screening into specific sized pieces, from large stones to soil, suitable for recycling.

- Terex Aggwash 60 Aggregate Washer - carries out rinsing, scrubbing and sand processing.

5.5. As previously mentioned, a noise management document submitted for the last application suggests that the plant will be limited to the hours of 08:00 - 17:00. Monday to Friday only. The document also provides that the concrete crusher will not operate for more than 40 hours a week.

5.6. During the baseline survey on 1st May 2015, specific noise measurements were taken of the two significant items of plant in use at the site. Representative measurements were taken in close proximity to ensure that the noise from each plant was dominant and not affected by extraneous noise sources. The duration of measurements was sufficient to obtain representative noise levels. Both these parameters were endorsed by the attending EHO.

5.7. However as discussed above this plant has subsequently been replaced so a new survey of the specific noise from the current plant was carried out on 25th July 2017. Table 2 below summarises the updated measured noise data for the plant. The octave data are provided to clarify any tonal component.

Table 2. Summary of specific plant noise (dB $L_{eq,T}$)

Specific plant operation @ distance	Overall level (L_{Aeq})	Highest L_{Amax}	Octave band centre frequency (Hz)							
			63	125	250	500	1k	2k	4k	8k
Metso crusher @10m										
Running and crushing concrete	80	85	84	87	78	80	74	69	65	62
McCloskey Trommel @10m										
Running and screening spoil	76	77	80	76	69	69	72	68	65	60

5.8. It can be seen in the data above that the noise generated by either plant has no discrete tones (i.e. octave centre band frequencies 5dB+ higher or lower than adjacent octave values), which was corroborated by an audible appraisal.

5.9. There is no octave data available for the new Terex washing plant but based on the manufacturer's data the overall noise levels are evidently much lower than the existing plant so it is not considered to be significant as a discrete source. Figure 4 in the appendix shows the noise contour diagram from the suppliers, indicating a maximum noise level of 46dB(A) at the reference 10m line.

5.10. Based on conversation with the site management it has been assumed that during the hours of operation, for a typical 1-hour reference period, both the crusher and the trommel may be actually in use for 40-minutes, and be running in standby mode without operation for the remaining 20-minutes while the loaders gather new material.

Predicted Noise Impact

5.11. Since the original iteration of this report a number of discussions took place between the client and the relevant local authority officers. Based on the requirements of both the EHO and the Council's Landscape Officer, a scheme of mitigation has been agreed in principle, subject to this re-assessment of the predicted noise mitigation. The proposed latest scheme consists of the erection of one new 5m high permanent earth bund around the material storage bins in the northern section of the site in addition to the existing 5m high bund between the main items of equipment on site and the identified receptors.

5.12. The location and extent of the new bund is an L-shaped barrier around the north and west of the material storage area, operatives' car park and a re-located substation, thus providing further attenuation of loader activities and vehicle movements for the receptors to the north and north-west. Together with the existing bund the overall barrier will extend along the entire north-western boundary of the site for maximum protection.

5.13. Figure 2 in the appendix shows the latest proposed extent of the bunds. This is taken from Plandescil Consulting Engineers drawing no. 22209/004 Revision D dated 16th August 2017. Figure 2 in the appendix shows the latest layout of the site.

5.14. Table 3 below summarises the predicted cumulative noise impact from both items of plant running simultaneously over a reference 1-hour period at the receptor properties' curtilage. Distance corrections based on a 20-log reduction and a small correction for ground absorption will be applied.

Table 3. Predicted specific noise impact on receptor façades

Details	Overall sound pressure level - dB (A)	
	Receptor R1	**Receptor R2**
Shredder noise @10m (66% crushing / 34% standby)	78	78
Trommel noise @10m (66% screening / 34% standby)	74	74
Washer noise@10m (continuous)	46	46
Cumulative noise from new Plant- L_{Aeq} @10m	79	79
Distance correction (20 log) (260m / 200m)	-28	-26
Barrier / shielding correction	-13*	-13*
Ground absorption correction	-3	-3
Specific noise at receptors	35	37
Ambient noise level at receptors - L_{Aeq} (From Table 1)	46	40
Difference	**-11**	**-3**

* *Assumed existing and proposed **5m** bunds in place*

5.15. It can be seen in the table above from the 'Difference' value that the predicted impact ranges from 3dB below the measured ambient noise at receptor R2 to 11dB below the ambient at R1. This indicates that with the existing and proposed mitigation in place the noise from the two primary items of plant *when operating simultaneously* will be significantly reduced by the shielding effect of the bunds.

5.16. Subjectively it was apparent that the new crushing and pommel plant itself is quieter than the old plant. Whilst the measured values in operation are not significantly less than those previously measured, this is because the primary noise source, at least in the case of the crusher, was that of the material being processed rather than the equipment, which was noticeably less 'rattly' than the previous plant.

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6. DISCUSSION AND CONCLUSIONS

6.1. This assessment has demonstrated that with the existing and proposed mitigation in place, in the form of 5m high permanent planted bunds, noise from the cumulative operation of the concrete crusher and trommel at Drury's inert waste recycling site is predicted to be sufficiently attenuated so as not to disturb residents at the closest residential receptor properties under normal conditions. Whilst it is possible that noise from the operations may just be audible at the receptor boundaries, it is unlikely to disturb or be any louder than any other activity on the industrial estate.

6.2. The existing bund currently formed by a pile of spoil material is approximately 5m high and is located on or close to the north-west boundary of the site. It precludes line of sight from the plant to the receptors and is sufficient to attenuate noise from the plant by a calculated value of up to 16dB at those locations. This is a significant reduction and the effect was experienced during the baseline survey, as the operation of the plant was barely audible at either baseline measurement location. The EHO in attendance agreed that the impact had been greatly reduced; to the extent that would likely be considered acceptable.

6.3. This was corroborated by noise level measurements taken at the B2 location with and without the plant running, which indicated that the plant had no significant impact on overall noise levels measured. Table 4 below shows the measured levels demonstrating this claim.

Table 4. Measured noise levels with and without plant running

Measurement position and parameters	dB L_{Aeq}	dB L_{Amax}	dB L_{A90}
Position B2			
No plant running	40.3	51.1	37.7
Trommel only running	39.1	52.2	36.6
Crusher and Trommel running	40.7	49.5	38.1

6.4. It can be seen in the table above that the operation of the plant had no discernible impact on the overall measured noise levels at the B2 / R2 location; indeed it was even lower as an overall value with just the trommel running - explainable by other ambient sources from the industrial estate and influencing the first measurement.

6.5. In terms of this updated assessment, the values above still apply with the additional new proposed bund providing further shielding from operations in the north-west of the site. In further mitigation the new crushing and screening plant is in itself quieter than the old plant assessed at the time, so the noise impact is likely to be further reduced.

Conclusions

6.6. The existing 5m high bund along the western boundary of the screening and crushing area offers a substantial barrier to noise generated within the site, and therefore significantly reduces the noise impact at the receptor properties 200-260m to the west. With the construction of a second bund to the north-west of the material storage area, the extent of effective continuous barrier will be extended and additional operations will be shielded from the receptors. The second bund when planted will also provide additional visual shielding from industrial operations for the receptors.

6.7. The latest assessment of noise from the recently updated crushing and screening plant, together with consideration of the proposed washing plant, indicates that the cumulative noise level at the identified receptors will be at least 3dB below ambient noise levels, as measured at the receptors curtilage without any active operations from the Drury's site. It is therefore unlikely that plant on the site will be discernible as a discrete noise source, taking into account the existing noise environment being affected by the various industrial and commercial operations on the Lyngate Estate.

6.8. Additionally, it is considered that the noise management plan previously submitted is still a relevant and viable document, and if the restrictions on the times and days the site operates, as detailed in the plan, are implemented it should ensure that there is no operational noise when ambient noise levels may be lower than the measured values.

6.9. In conclusion, it is considered that if the proposed western boundary treatment as described in this updated report is implemented in conjunction with the limited hours detailed in the previously submitted noise management plan are implemented, noise from the operations of the inert waste processing operation will be adequately mitigated to meet the planning authority requirements. Subsequently noise from the site would not be expected to disturb the amenity of the closest neighbouring residents.

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APPENDIX 1
Survey, equipment and personnel details

A1.1 **Survey Date:**

Survey 1: Friday 1st May 2015

Survey 2: Tuesday 25th July 2017

A1.2 **Location:**

Cornish Way, Lyngate Ind. Estate, North Walsham

A1.3 **Personnel Present:**

Martin Loven – Loven Acoustics

A1.4 **Weather:**

Survey 1: Dry, NE wind <1m s^{-1}, 10^0C.

Survey 2: Dry, SW wind <1m s^{-1}, 22^0C.

A1.5 **Instrumentation:**

Make	Description	Model	Serial no.
Norsonic	Type 1 Sound Level Meter	Nor140	1403751

All instrumentation conforms to current UK standards and was calibrated before and after use. Calibration is traceable via NAMAS to standards held at NPL.

A1.6 **Procedure:** See main report

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Explanation of Noise Terms

A2.1 The L_{Aeq} indicates the average noise level and is the 'equivalent continuous' noise level over a sample period. It is the single parameter now commonly used to describe a noise environment. Most guidance on noise uses 'L_{Aeq}' to define acceptable levels.

A2.2 The L_{Amax} represents the noisiest event affecting the site during each one-hour sampling period.

A2.3 The L_{A10} indicates traffic noise levels and is the noise level exceeded for 10% of the sample period. It gives a good indication of the spread of noise events in a given environment. Near a busy road, the L_{10} and the L_{eq} are closely correlated, with the L_{10} typically 2-4dB higher than the L_{eq}.

A2.4 L_{A90} indicates the noise level exceeded for more than 90% of the time and represents the background noise levels.

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APPENDIX 2

Figure 1. Site plan showing baseline (B) and specific (S) measurement positions and assessed receptor locations, as well as approximate location of relevant plant. Approximate site outline in red

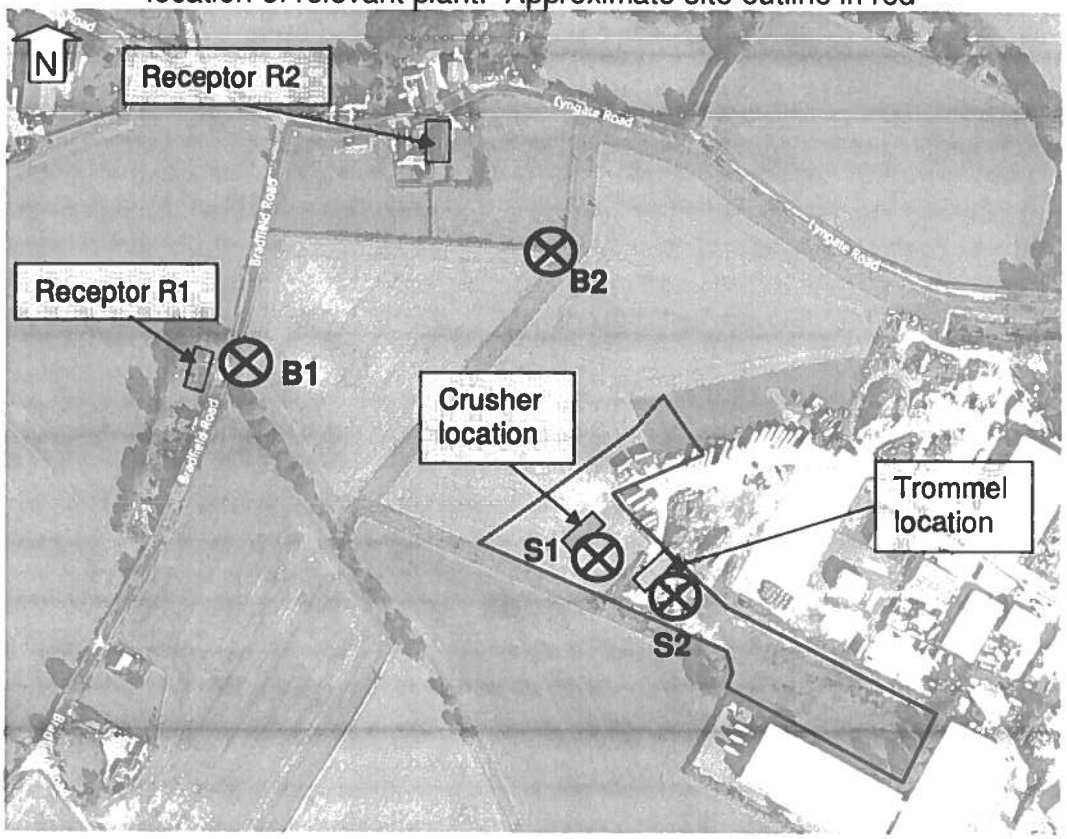

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Figure 2. Latest proposed site layout with primary plant locations

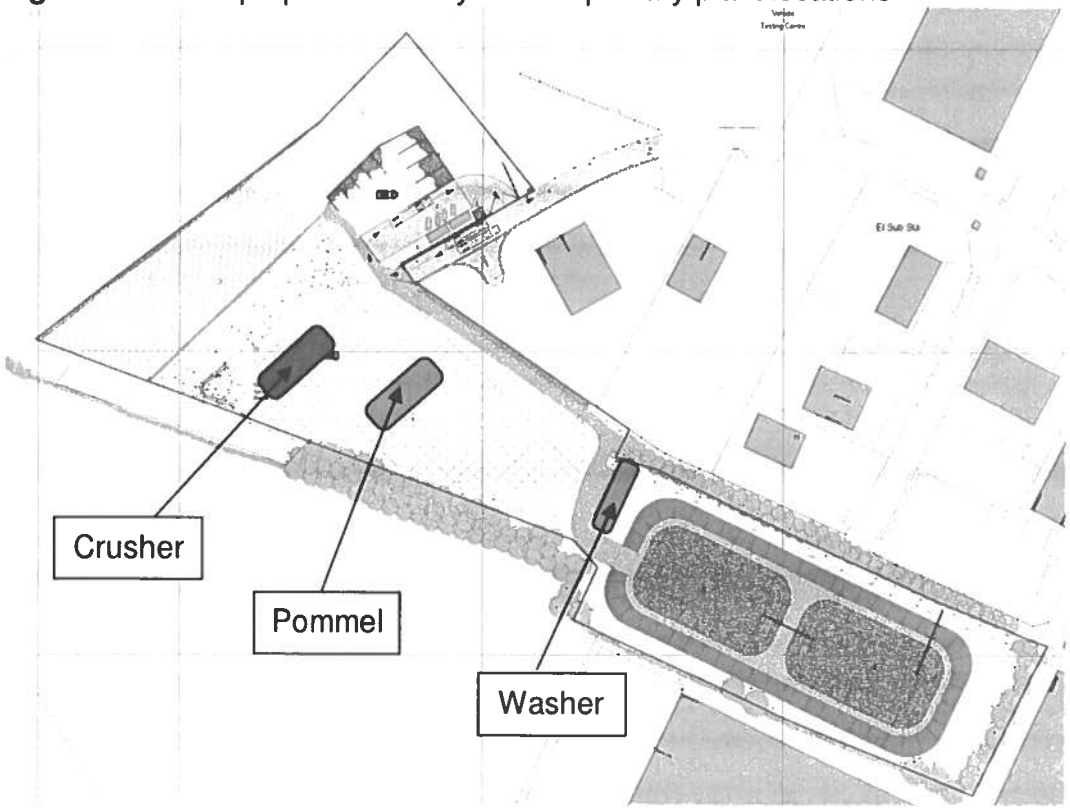

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Figure 3. Location and extent of existing and proposed additional earth bund

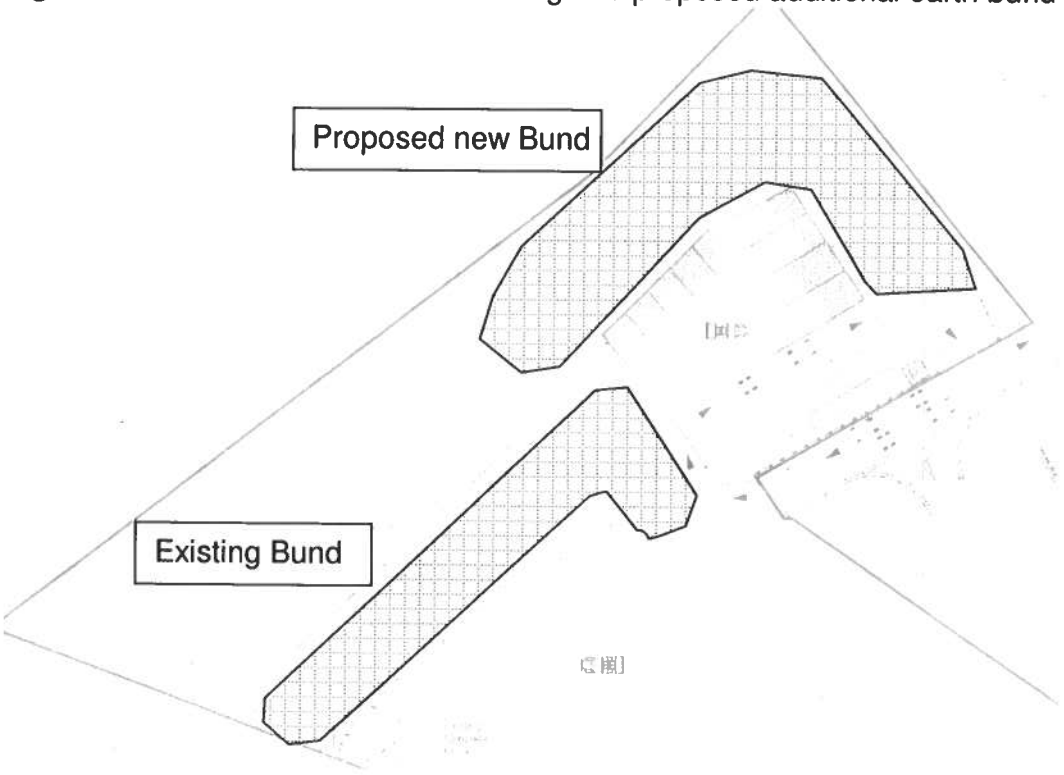
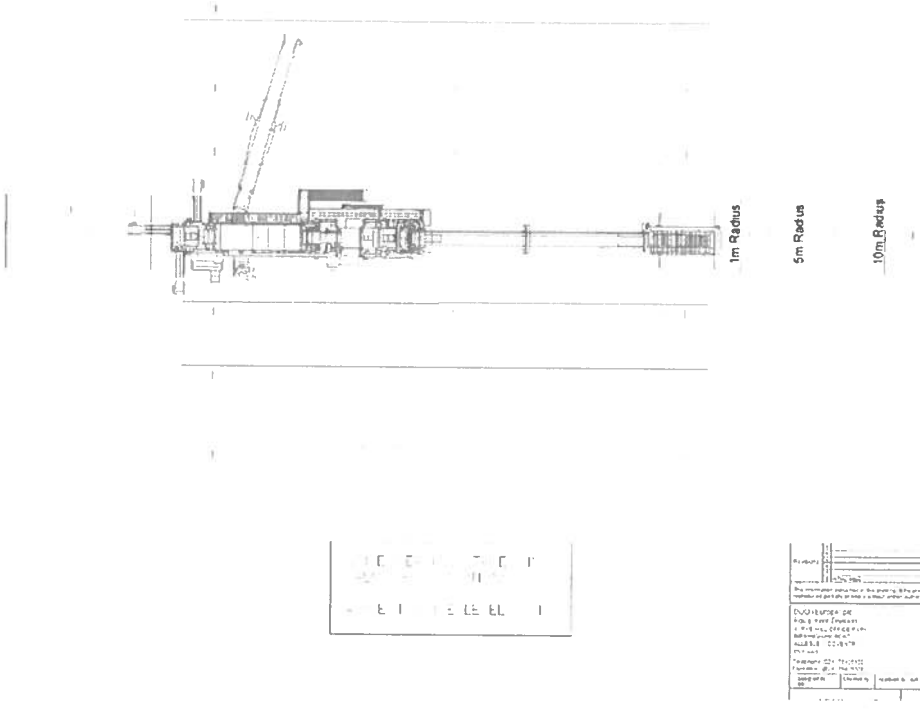


Figure 4. Proposed Aggwash plant noise contours



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APPENDIX 6

Drurys Environmental Services Limited: Noise Management Plan

Various noise assessments and reports have been carried out on the waste site and in particular relating to the inert waste recycling area on Cornish Way in connection with crushing and screening equipment. This plan should therefore be read in conjunction with the Loven Accoustics Noise Impact Assessment within Appendix 6.

Receptors (scaled maps and site plan under appendix are provided separately showing relative locations of receptors, sources and monitoring points)

Receptor	**Receptor reference**	**Distance to installation boundary/sources**	**Background noise level at each receptor**		**Specific noise level at each receptor when installation is operating**	
Type, extent, size			Day time	Night time	Day time	Night time
Wayside:Private residence on Bradfield Road	R1	260-300m	See Loven report		See Loven report	
Prosperos barn: Private residence on Lyngate Road	R2	200-240m	See Loven report		See Loven report	

Noise sources (Information relating to individual sources and emissions)

Identify sources of noise and/or vibration	**Source reference**	**Describe the nature of the noise or vibration**	**Contribution to overall emission**
List each source considered to be insignificant – by process or activity if divided in this way. Mobile sources should also be identified with their areas of use		Include hours of operation for non-continuous, infrequent or seasonal activities. Note any distinctive characteristics e.g., clatter, whine, hiss, screech, hum, bangs, clicks, thumps or tonal elements	This relates to the relative risk associated with each source in terms of impact at sensitive receptors. Categorise each as high or medium.
Concrete crusher (Cornish Way)	S1	Restricted hours-see below, deep crushing noises occasional bangs and thumps	Medium risk
Soil screen (trommel) (Cornish Way)	S2	Restricted hours-see below, occasional clattering	Medium risk
Mobile Plant (Cornish Way)	S3	Restricted hours-see below, reversing alarms	Low risk
Waste processing equipment (main site) eg shredder/picking line	S4	Shredder hours limited, occasional bangs with loud humming background	Low risk
Mobile plant (main site)	S5	Reversing alarms	Low risk

Demonstration of Best Available Techniques (BAT)

Details below of system used plus regular monitoring and detailed investigation into any noise complaints using form below as record of this.

Source reference	Are abatement and actions taken to prevent or minimise emissions BAT?	Actions to be taken to meet BAT and timescales
	Demonstrate that arrangements are BAT for the installation (see sector guidance and H3 for indicative BAT requirements)	Identify proposals for improvement or issues that need to be addressed to meet BAT, with time scales for implementation
S1	Limited operating times within noise management plan of Weekdays only between 0800hrs and 1700hrs and for not more than 40 hours per week. Keep operational area within 5m soil bunded confined area	
S2	Limited operating times within noise management plan of Weekdays only between 0800hrs and 1700hrs. Keep operational area within 5m soil bunded confined area	
S3	Limited operating times within noise management plan of Weekdays only between 0800hrs and 1700hrs. Keep operational area within 5m soil bunded confined area	
S4	Using shredder within waste building area will help noise reduction and regular maintenance of machines and equipment	
S5	Monitoring the reversing alarm levels regularly as not seen as nuisance risk at present	

Noise complaint report form	Date:	Ref. No.

Name and address of complainant	
Tel no. of complainant	
Time and date of complaint	
Date, time and duration of offending noise	
Weather conditions (e.g., dry, rain, fog, snow)	
Wind strength and direction (e.g.,light, steady, strong, gusting)	
Complainant's description of noise (e.g., hiss, hum, rumble, continuous, intermittent)	
Has complainant any other comments about the offending noise?	
Any other previous known complaints relating to installation (all aspects, not just noise)	
Any other relevant information	
Potential noise sources that could give rise to the complaint	
Operating conditions at the time offending noise occurred (e.g., flow rate, pressure at inlet and pressure at outlet)	
Action taken:	
Final outcome:	

Form completed by		Signed	

APPENDIX 8.

Dust Control Scheme

Drurys Environmental Services Ltd
Folgate Road
North Walsham
Norfolk NR28 0RJ

June 2021

Contents

Part 1: Supporting text

Figures:

Appendices:

1 Introduction

1.1 This Dust Control Scheme addresses the management of fugitive particulate matter related to the acceptance, bulking and transfer of municipal and commercial wastes at Drury's Waste Transfer Station (doing business as Drurys Environmental Services Ltd). The waste site is located at 4 Folgate Road, Lyngate Industrial Estate, North Walsham, Norfolk NR28 0AJ.

1.2 Non-hazardous wastes are received for bulking up, treating (by shredding and crushing), short term storage and transport off site; up to 75,000 tonnes per year non-hazardous wastes may be brought on site under the terms of the Environmental Permit. Most wastes are managed within buildings but some are off-loading outdoors and aggregate and wood waste are stored outdoors

1.3 The purpose of this document is to provide information about dust controls in support of proposals for varying the current waste permit including changes to use of various waste processing machinery and equipment.

1.4 This scheme therefore supports ongoing amendments to the current Environmental Permit which is overseen by the Environment Agency.

1.5 Local responsibility for environmental health and nuisance rests with North Norfolk District Council (NNC), Holt Road, Cromer, Norfolk NR27 9EN. Contact telephone: 01263 516085, e-mail: ep@north-norfolk.gov.uk.

1.6 Air monitoring data have demonstrated that the District is in compliance with the Air Quality Objectives for criteria pollutants and no Air Quality Management Areas have been declared. The closest particulate matter (PM_{10}) monitoring point to the site is Bacton, nitrogen oxides are monitored in North Walsham and other locations but are not a significant source at the waste site.

1.7 Figure 1 shows the site context and sensitive receptors. The nearest receptors are the adjacent commercial buildings on the west boundary. The nearest residential receptor is a house on Lyngate Road (receptor 6 in Figure 1).

1.8 Therefore the objective of the scheme is to prevent visible airborne dust leaving the site and causing a nuisance to nearby receptors. Site worker health and safety is an additional concern but it is not the purpose of this document to assess or control worker exposure.

2 Sources of Airborne Dust

2.1 Dust is defined as small solid particles in the size range 1 –75 µm (microns) in diameter (BS 6069, Part 2). Above this size, particles would be classified as grit. Larger particles, typically greater than 30 µm in size, fall out of the atmosphere quickly under gravity and settle within 100 m of the source. Intermediate size particles (10 – 30 µm) are likely to travel 200 – 500m. and are visible to the naked eye. Smaller particles (<PM_{10}) make up a minor proportion of dust emitted from most waste sites and are generally not visible.

2.2 Fugitive dust is most likely to be generated by the handling and storage of the waste materials accepted on site and by specific activities; dispersion is highly affected by meteorological conditions (precipitation and wind).

2.3 The table which follows below provides a matrix to assessing various sources of dust by relating likely emission levels and durations to the overall likelihood of off site migration and associated nuisance. This allows higher potential intermittent sources such as screening and grinding to be distinguished from lower level but more continuous sources such as vehicle movements and waste storage. Mitigation measures may then be targeted more effectively to the type of source and the ease by which it may be controlled simply by amending or ceasing an activity.

2.4

Assessment of Dust Sources

Source type	Operation	Emission rate	Duration	Relative overall significance
Transfer & Bulking Up	Loading /unloading	**	++	••
		*	+++	•
Outdoor Waste Storage	Aggregate and timber storage areas	*	+++	•
Ground Surfaces	Vehicle movements	*	+++	•
Activities	Screening and grinding in open faced building:			
	General waste	***	+	••
	Wood	***	+	••

Emission Rate	Intensity	Duration	Relative Overall Significance
*	Low +	Short (Occasional)	• Minimal
**	Medium ++	Medium (Regular/ daily)	•• Moderate
***	High +++	Long (More or less continuous)	••• Large

2.5 The assessment shows that the most significant emission sources are vehicles loading and unloading waste, and screening, crushing and grinding.

2.6 Waste storage outdoors and vehicle movements are also potential sources but of lower significance. No significant off site sources of dust are identified in the immediate area that could affect the site.

3 Mitigation Measures for Control of Dust

3.1 Active mitigation measures are most likely to be needed for waste loading and unloading and for screening and grinding. Measures are also indicated for other activities such as site vehicle movements and uncovered waste storage areas. Good housekeeping practices should be implemented as well as keeping site surfaces damp in dry weather to suppress fugitive dust.

3.2 Dust suppression systems available on site include an indoor spray system (installed in some but not all building units) and outdoor water spray using a portable bowser.

3.3 *Screening and Grinding:*

- *Source: Building entry points*: dust is to be confined within the building as much as practical. It is recognised that some dust will be emitted from the open face of the buildings when the grinding and screening operations are underway.
- *Mitigate* by activating the indoor water spray system or outdoor system, as appropriate.
- *Monitor* by visual means to assess fugitive dust migration and prevent visible emissions from crossing the site boundary.
- *Maintain Records* when screening and grinding is undertaken of weather conditions (precipitation, wind speed and direction) and of dust generation. Refer to the example log in Appendix 1. for the type of records to maintain.

3.4 *Unloading of waste and materials /loading*:

- *Source*: Loading and unloading items such as aggregates and wood waste, and other incoming materials and wastes.
- *Mitigate* by using water spray during weather conditions conducive to dust generation. Minimise drop heights from unloaded vehicles. Vehicles carrying waste should be covered at all times.
- *Monitor* by visual means to assess fugitive dust migration and prevent visible emissions from crossing the site boundary.

3.5 *External storage areas*:

3.6 *Source*: Fine particles present in stored waste such as aggregates and timber, dust may in particular be generated when the stockpile is managed, loaded or moved.

3.7 *Mitigate* by using water spray if dust is observed arising from outdoor storage areas.

3.8 *Monitor* by visual means to assess fugitive dust migration and prevent visible emissions from crossing the site boundary.

3.9 *Site vehicles*

3.10 *Source:* HGVs and other vehicles using the site can generate dust from wheels on hard standing or unpaved areas during dry spells.

3.11 *Mitigate* by using water spray if dust is observed arising from vehicles.

3.12 *Monitor* by visual means to assess fugitive dust migration and prevent visible emissions from crossing the site boundary.

3.13 General Site Wide Dust Controls and Monitoring

3.14 The site manager will be familiar with and maintain a copy of the Dust Control Scheme and be responsible for ensuring that a dust monitoring log is maintained. Dust should be visually monitored and a log completed (1) whenever screening, crushing or grinding is conducted and (2) when fugitive dust becomes visible on site with potential to leave the site and affect adjacent property.

3.15 Control measures will take into consideration prevailing weather conditions particularly wind direction and speed and humidity, and the type of activity:

- The dust control scheme will apply at all times during active operating hours.
- If visible dust is generated and could drift off site then mitigation measures must be taken immediately to prevent further migration
- Water spray (mobile bowser) to be ready and available to enable dust suppression of outdoor areas, as needed
- Drop heights from vehicles unloading bulk wastes to be minimised
- Vehicle speed limits controlled to 15 mph max. on site
- Loaded heavy goods vehicles to be sheeted

NNDC ENVIRONMENTAL HEALTH DEPARTMENT
Dust Control Log Book Concrete Crusher

TDEPEPPL05

Dust Control Log Book for:

[Company Name] [Crusher Type]
Serial Number [number]
Owned by [Company Name]

Date / Time e.g. dd/mm/yy	Operative Name	Site Location	Weather Conditions	Dust Observations	Use of Dust Suppression?	Additional Dust Control	Comments	Complaint Yes/No
/ /								

Key for Dust Observations
0 = None
1 = Slight, not leaving site boundary
2 = Dust approaching site boundary
3 = Abnormal/ leaving site boundary

Additional Dust Control
H = Hood used
M = Minimised drop height
S = Stock piles wetted
C = Ceased crushing

T:\2012 Projects\N12606 Drury's Waste\Drawings\Working drawings - new application\N12606-4 Sensitive receptors

Key

- Site Location
- 100m Buffer from site
- 200m Buffer from site
- 300m Buffer from site

1 Brick Kiln Farm

2 Private Proporty, Bradfield Road

3 Private Proporty, Bradfield Road

4 Group of houses (Including Brdafield Road, Bradfield Close, Millard Close and Kendall Close)

5 Group of houses behind B1145, (Including Lynfield Road, Shepheard Close, Debenne Road, Hadfield Road, Northfield Road, Harbord Close, Lyngate Road and Osborne Close)

6 Private prrperty off Lyngate Road

7 Group of houses behind B1145 - Lyngate Road (Including Harvey Drive

8 Staithe House

9 Private property off Lyngate Road

10 Rookery Farm

11 Mill Cottage

12 Commercial buildings closest to site include: The Calypso Cofef Company, Holland Brand Workshop, Premier Links Ltd, Mustang, Clarke Kelly Ltd, PSS Steering, Courtenay Sport Ltd, Virden Micheal Ltd, Marine Weld, NFU Mutual Walsham. (plus other unmarked units).

N12606-2

Sensitive Receptors

Drury's Waste Application

December 2012

thelandscapepartnership

APPENDIX 8

Dust Assessment & Control

Drurys Environmental Services Ltd, Folgate Road, North Walsham. Norfolk NR28 0AJ

Contents

Figures:

1 Introduction

1.1 This Dust Control Scheme addresses the management of fugitive particulate matter related to the acceptance, processing and storage of inert construction and demolition waste at the inert recycling area on Cornish Way Business Park. The waste site is located at Cornish Way Business Park, Lyngate Industrial Estate, North Walsham, Norfolk NR28 0FE.

1.2 Non-hazardous inert wastes are received for crushing and screening and short term storage and transport off site. Up to 75,000 tonnes per year non-hazardous wastes may be brought on site under the terms of the Environmental Permit. This processing area will all be external with no buildings to be used for the process.

1.3 The purpose of this document is to provide information about dust controls in support of proposals for the above processes.

1.4 This scheme also supports the current Standard Rules Environmental Permit for the site which is overseen by the Environment Agency.

1.5 Local responsibility for environmental health and nuisance rests with North Norfolk District Council (NNC), Holt Road, Cromer, Norfolk NR27 9EN. Contact telephone: 01263 516085, e-mail: ep@north-norfolk.gov.uk.

1.6 Air monitoring data have demonstrated that the District is in compliance with the Air Quality Objectives for criteria pollutants and no Air Quality Management Areas have been declared. The closest particulate matter (PM_{10}) monitoring point to the site is Bacton, nitrogen oxides are monitored in North Walsham and other locations but are not a significant source at the waste site.

1.7 Appendix 1 shows the site context and sensitive receptors. The nearest receptors are the adjacent commercial buildings to south east of site and the nearest residential receptor is a house on Bradfield Road over 250m away to the west of site.

1.8 Therefore the objective of the scheme is to prevent visible airborne dust leaving the site and causing a nuisance to nearby receptors. Site worker health and safety is an additional concern but it is not the purpose of this document to assess or control worker exposure.

2 Sources of Airborne Dust

2.1 Dust is defined as small solid particles in the size range 1 –75 µm (microns) in diameter (BS 6069, Part 2). Above this size, particles would be classified as grit. Larger particles, typically greater than 30 µm in size, fall out of the atmosphere quickly under gravity and settle within 100 m of the source. Intermediate size particles (10 – 30 µm) are likely to travel 200 – 500m. and are visible to the naked eye. Smaller particles (<PM_{10}) make up a minor proportion of dust emitted from most waste sites and are generally not visible.

2.2 Fugitive dust is most likely to be generated by the handling, processing and storage of the waste materials accepted on site and by specific activities; dispersion is highly affected by meteorological conditions (precipitation and wind).

2.3 The table which follows below provides a matrix to assessing various sources of dust by relating likely emission levels and durations to the overall likelihood of off site migration and associated nuisance. This allows higher potential intermittent sources such as screening and grinding to be distinguished from lower level but more continuous sources such as vehicle movements and waste storage. Mitigation measures may then be targeted more effectively to the type of source and the ease by which it may be controlled simply by amending or ceasing an activity.

2.4

Assessment of Dust Sources

Source type	Operation	Emission rate	Duration	Relative overall significance
Outdoor Storage	Inert waste eg crushed concrete/soil and aggregate storage areas	*	+++	•
Ground Surfaces	Vehicle movements	*	+++	•
Activities	Screening/crushing in the open:	***	+	••
	Washing of gravel	*	+	•

Emission Rate Intensity		Duration		Relative Overall Significance	
*	Low	+	Short (Occasional)	•	Minimal
**	Medium	++	Medium (Regular/ daily)	••	Moderate
***	High	+++	Long (More or less contin}	•••	Large

2.5 The assessment shows that the most significant emission sources are the processing activities of screening and crushing.

3 Mitigation Measures for Control of Dust

3.1 Active mitigation measures are most likely to be needed for waste loading and unloading and for crushing and screening. Measures are also indicated for other activities such as site vehicle movements. Good housekeeping practices should be implemented as well as keeping site surfaces damp in dry weather to suppress fugitive dust.

3.2 Dust suppression systems available on site include integral water spray system on the crusher and outdoor water spray using a portable bowser and hose pipe from nearby mains water supply.

3.3 *Crushing and Screening:*

- *Source: Machine operations using crusher and trommel screens*: dust is to be controlled as much as practical. It is recognised that some dust will be emitted from these processes when these operations are underway.
- *Mitigate* by activating the integral water spray system on crusher and using regular spraying of water on stockpiles and road surfaces, as appropriate.
- *Monitor* by visual means to assess fugitive dust migration and prevent visible emissions from crossing the site boundary.
- *Maintain Records* when screening and crushing is undertaken of weather conditions (precipitation, wind speed and direction) and of dust generation. Refer to the example log figure 1. for the type of records to maintain.

3.4 *Unloading of waste and materials /loading:*

- *Source*: Loading and unloading items such as aggregates and soils, and other incoming inert waste materials..
- *Mitigate* by using water spray during weather conditions conducive to dust generation. Minimise drop heights from unloaded vehicles. Vehicles carrying waste should be covered at all times.
- *Monitor* by visual means to assess fugitive dust migration and prevent visible emissions from crossing the site boundary.

3.5 *External storage areas:*

Source: Fine particles present in stored waste such as aggregates, dust may in particular be generated when the stockpile is managed, loaded or moved.

Mitigate by using water spray if dust is observed arising from outdoor storage areas.

Monitor by visual means to assess fugitive dust migration and prevent visible emissions from crossing the site boundary.

3.6 *Site vehicles*

Source: HGVs and other vehicles using the site can generate dust from wheels on hard standing or unpaved areas during dry spells.

Mitigate by using water spray if dust is observed arising from vehicles.

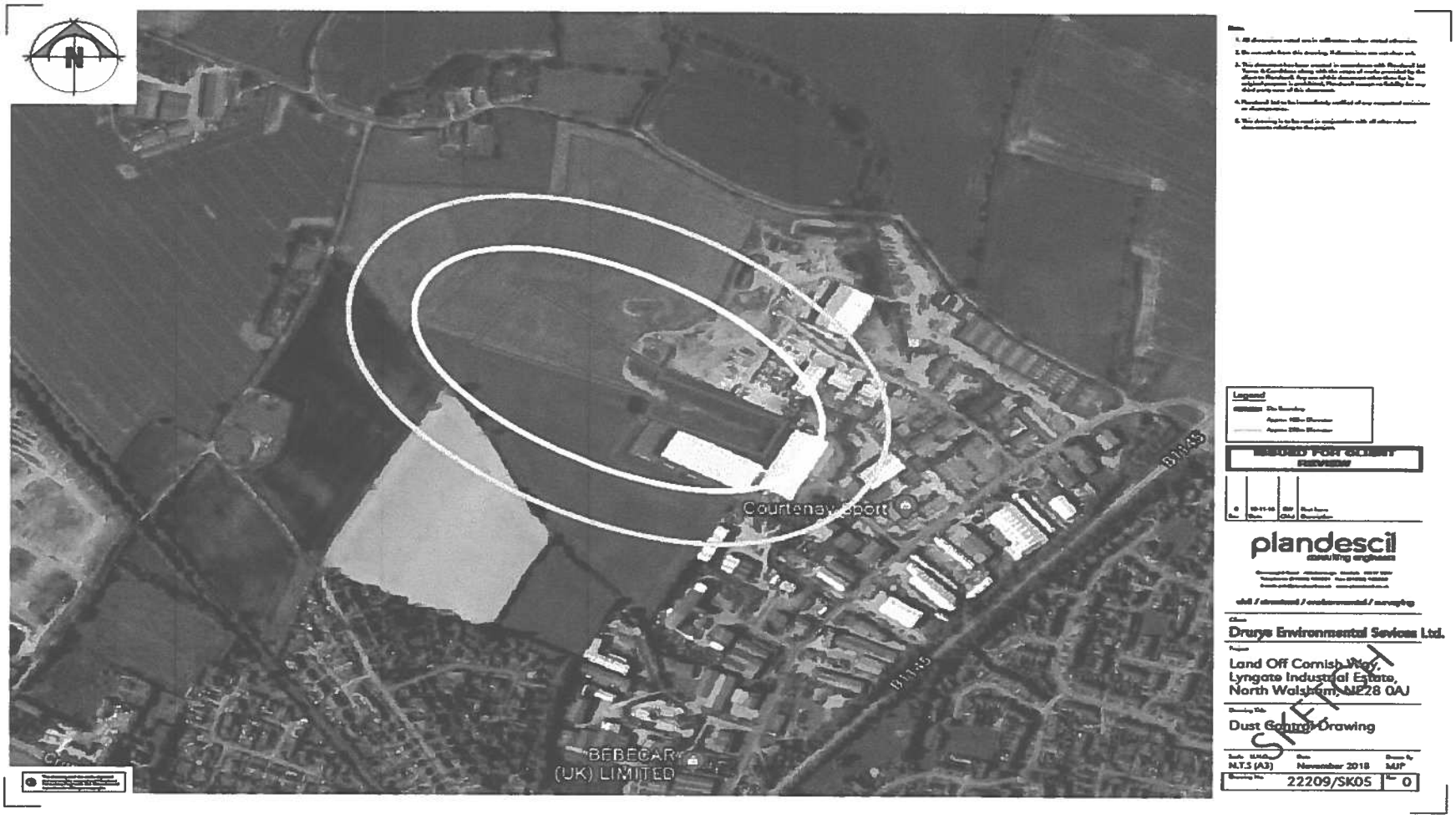
Monitor by visual means to assess fugitive dust migration and prevent visible emissions from crossing the site boundary.

3.7 *General Site Wide Dust Controls and Monitoring*

The site manager will be familiar with and maintain a copy of the Dust Control Scheme and be responsible for ensuring that a dust monitoring log is maintained. Dust should be visually monitored and a log completed (1) whenever screening, or crushing is conducted and (2) when fugitive dust becomes visible on site with potential to leave the site and affect adjacent property.

Control measures will take into consideration prevailing weather conditions particularly wind direction and speed and humidity, and the type of activity:

- The dust control scheme will apply at all times during active operating hours.
- If visible dust is generated and could drift off site then mitigation measures must be taken immediately to prevent further migration
- Water spray (mobile bowser) to be ready and available to enable dust suppression of outdoor areas, as needed
- Drop heights from vehicles unloading bulk wastes to be minimised
- Vehicle speed limits controlled to 15 mph max. on site
- Loaded heavy goods vehicles to be sheeted
- Road Sweeper to be used to reduce settled dust reducing dust emissions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November 2018
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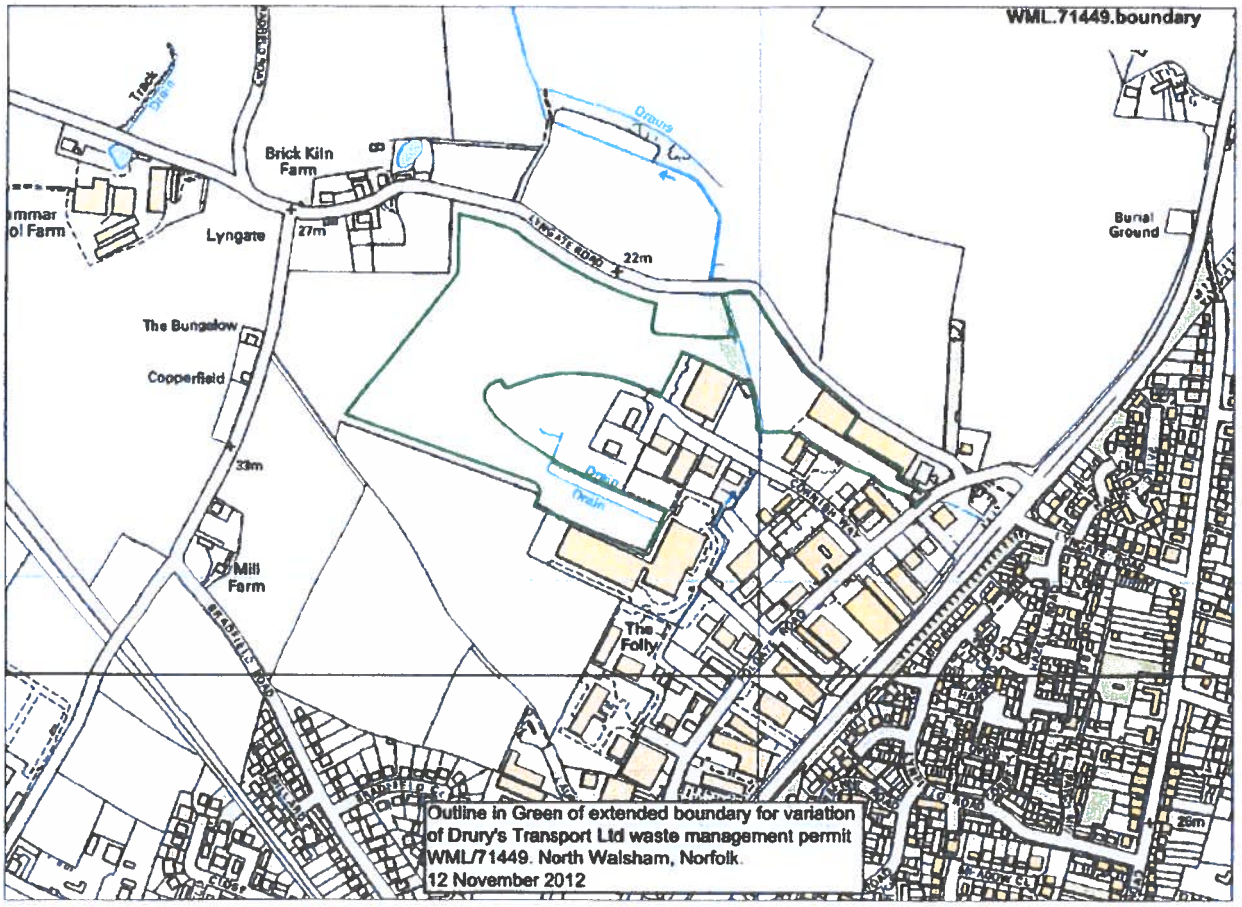
APPENDIX 1

APPENDIX 9.

Schedule 4 – amended plan

Schedule 1 – site plan



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