

DORRINGTON QUARRY LANDFILL



ENVIRONMENTAL MANAGEMENT SYSTEM DORRINGTON QUARRY LANDFILL

REF: EMS/HE/DQ/1.00/2021

Carried out for: H Evason & Co

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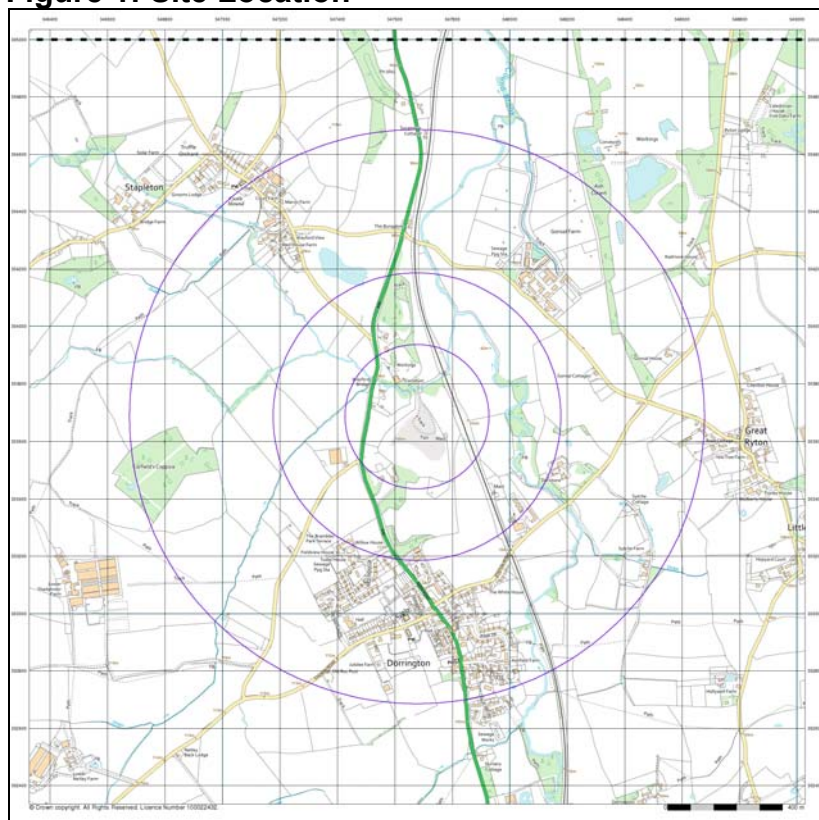
EMS FORMS PACK

1. SITE DESCRIPTION

1.1 SITE LOCATION

- 1.1.1 The site entrance is located at National Grid Reference (NGR) SJ 47554 03875, the centre of the recycling area is SJ 74635 03869 and the centre of the landfill is at SJ 47680 03568, which lies approximately 9km south of Shrewsbury on the northern edge of Dorrington. The site is off the A49, presented at Figure 1 below and is detailed at Drawing ESSD 1. Access to the site is directly off Pinfold Lane through lockable steel security gates.

Figure 1: Site Location



- 1.1.2 The site is operated as an inert landfill in one part of the site and on the north site of the tributary to the Cound Brook is used as a recycling facility. The new application is to have the landfill and inert recycling in one Permit.
- 1.1.3 This EP application seeks to allow for inert waste landfill in the all the southern part including the Old landfill area and inert recycling in the north.

1.2 SITE DEVELOPMENT

- 1.2.1 The site is to operate as an inert landfill.
- 1.2.2 As part of the waste acceptance criteria for all landfill sites and to comply with the Environmental Permitting Regulations, and the site will except only inert waste for disposal in the landfill.

1.3 FACILITY TYPE

- 1.3.1 The site will be classed as an Inert Landfill and will accept up to xxx,000 tonnes per annum.
- 1.3.2 The site will require an Environmental Permit to operate issued by the Environment Agency.

1.4 LANDFILL BOUNDARY

- 1.4.1 The landfill boundary is shown on Drawing No. ESSD4.

1.5 HOURS OF OPERATIONS

- 1.5.1 The site will be open for the deposit of waste between the following hours:

07:30 - 17:00 Monday to Friday
07:30 - 12:00 Saturday

- 1.5.2 Closed Sunday/Bank Holidays/Public Holidays unless the written consent of Shropshire County Council and the EA has been previously obtained. Appropriate temporary lighting will be provided for the working area during winter months if required.

1.6 MANNING LEVEL

- 1.6.1 The staffing requirements for the landfill site and recycling facility, will require a technically competent person COTC/CCC Inert Landfill and Inert Treatment. Additionally, other staff will be required for the redevelopment and compaction operations as follows:

Site Manager	1
Plant Operatives	2
Weighbridge Clerk	1

1.7 SITE IDENTIFICATION

1.7.1 The site ID board will be displayed at the site entrance. This shall show the site name, address, permit number, the name and address and telephone number of the Agency, hours for receipt of waste and an emergency contact number and will be of durable construction. The site access layout is presented at Drawing ESSD 4.

1.8 WASTE TYPES

1.8.1 GENERAL

1.8.1.1 The Dorrington Quarry Landfill will take inert waste. A full list of waste types is presented in the application.

1.9 CLOSURE

1.9.1 GENERAL

1.9.1.1 The site will comply with the Closure Plan and will be required to carry out post landfill environmental monitoring for at least three years before applying to surrender the permit. Dorrington Quarry Landfill will take inert waste. A full list of waste types is presented in the application.

2. SITE ENGINEERING FOR POLLUTION PREVENTION AND CONTROL

2.1 GAS MANAGEMENT

2.1.1 General

2.1.1.1 Quarterly gas monitoring will be required at this site, as gas production potential is negligible.

2.1.2 Monitoring

2.1.1.2 Landfill gas monitoring will be carried out using a gas analyser to record the methane, carbon dioxide, oxygen and relative pressure in each borehole and the weather and barometric pressure will also be recorded as set out in Tables 1 and 2.

Table 1: Landfill Gas Monitoring Points

Phase 1	MP1.1-1.2	Monitoring Point in waste	Design detail on ESSD 7
Phase 2	MP2.1-2.2	Monitoring Point in waste	Design detail on ESSD 7
Perimeter	BH 1-7	Monitoring Borehole outside waste. Combined gas and groundwater	Design detail on ESSD 7

Table 2: Landfill Gas Monitoring Parameters

Determinands	Monitoring Frequencies	Units and Accuracies
Methane (CH ₄)	Quarterly	%v/v ±0.5%
Carbon Dioxide (CO ₂)	Quarterly	%v/v ±0.5%
Carbon Monoxide (CH ₄)	Quarterly	-
Oxygen (O ₂)	Quarterly	%v/v ±0.5%
Atmospheric Pressure	Quarterly	±1 mb
Differential pressure	Quarterly	±0.1 mb
Meteorological Data	Quarterly	-

2.2 LEACHATE MANAGEMENT

2.2.1 General

- 2.2.1.1 It is proposed to operate the site according to the principles of a hydraulic barrier between the waste and the water table and as such no leachate monitoring is required on site.

2.3 GROUNDWATER MANAGEMENT

2.3.1 General

- 2.3.1.1 Groundwater monitoring will be carried out on a quarterly basis to ensure that the landfill operations have no impact on surrounding groundwater quality. 5 groundwater monitoring boreholes have been installed in a phased manner and monitored for level quality on a quarterly basis as per Tables 3 and 4.

Table 3: Groundwater Monitoring Borehole Locations

Perimeter	BH 1	Perimeter Down Hydraulic Gradient	Level and Quality
Perimeter	BH2	Perimeter Down Hydraulic Gradient	Level
Perimeter	BH 3	Perimeter Down Hydraulic Gradient	Level and Quality
Perimeter	BH 5	Perimeter Down Hydraulic Gradient	Level and Quality

Table 4: Groundwater Monitoring Parameters

Parameter	Landfilling Phase		Closure/ Aftercare
	Quarterly	Annually	Annually
Water Level	•	•	•
pH	•	•	•
Electrical conductivity 20°C	•	•	•
Ammoniacal nitrogen	•	•	•
Chloride	•	•	•
Sulphate	•	•	•
Alkalinity	•	•	•
Sodium	•	•	•
Potassium	•	•	•
Calcium	•	•	•
Magnesium	•	•	•
Iron	•	•	•
Cadmium	•	•	•
Copper	•	•	•
Chromium	•	•	•

Parameter	Landfilling Phase		Closure/ Aftercare
	Quarterly	Annually	Annually
Lead	•	•	•
Nickel	•	•	•
Zinc	•	•	•
Mercury	•	•	
Hazardous Substance Scan		Annual for first six years	Six Yearly

2.3.2 Groundwater Monitoring

2.3.3.1 Groundwater will be monitored at the locations shown on Drawing No. ESSD 10.

2.3.3.2 Groundwater sampling shall be undertaken on a quarterly basis in accordance with the list set out in Table 4.

All groundwater samples shall be taken according to the following sampling protocol:

1. Each monitoring point shall be checked for appearance and any damage or unusual occurrence noted. All damage shall be reported to the Site Manager;
2. Dip the borehole for groundwater level and record;
3. Calculate and record the volume of ground water in the borehole and purge the borehole to three times that volume;
4. Leave the borehole to fully recharge;
5. Take groundwater samples directly using low flow pumps;
7. The sample bottle shall be sealed when it is completely full;
8. The sample bottle shall be labelled with date, time, reference number and site;
9. A cool box shall be used for immediate storage of the samples and transportation to the laboratory;

10. The date of the monitoring round shall be recorded in the Site Diary.

All analytical work will be undertaken by a UKAS accredited laboratory and sampling procedures shall be in accordance with written procedures obtained from the testing laboratory for the appropriate determinands. The results of all monitoring and analysis will be forwarded to DEFA as soon as reasonably practicable. An annual report will be produced which details and interprets groundwater monitoring results. This report will be undertaken by a suitably qualified person.

2.4 SURFACE WATER MONITORING

2.4.1 General

- 2.4.1.1 Groundwater monitoring will be carried out on a quarterly basis to ensure that the landfill operations have no impact on surrounding groundwater quality. 5 groundwater monitoring boreholes have been installed in a phased manner and monitored for level quality on a quarterly basis as per Tables 3 and 4.

TABLE 5: Surface Water Monitoring

Parameter	Landfilling Phase SW1, SW2, SW3		Closure/ Aftercare Phase SW2 only
	Quarterly	Annually	Six Monthly
pH	•	•	•
Electrical conductivity 20°C	•	•	•
Ammoniacal nitrogen	•	•	•
Chloride	•	•	•
COD	•	•	•
DO	•	•	•
Nickel	•	•	•

2.5 GEOLOGICAL BARRIER

2.5.1 General

- 2.5.1.1 A fully engineered geological barrier will be constructed on the base and side walls.

2.5.2 Basal Lining System

2.5.2.1 This consists of 1 metre of worked inert material brought to site.

2.5.2.2 The basal geological barrier will be placed in accordance with the Construction Quality Assurance Plan and carried out under part-time CQA supervision.

2.5.3 Side Slope Lining System

2.5.3.1 This consists of 1 metre of worked inert material brought to site.

2.5.3.2 The basal geological barrier will be placed in accordance with the Construction Quality Assurance Plan and carried out under part-time CQA supervision.

2.5.4 Leachate Drainage System

2.5.4.1 This is not required on site.

2.5.5 Capping System

2.5.5.1 This is not required on site.

3. INFRASTRUCTURE

3.1 GENERAL

The site will be operated as a fully contained facility and the following infrastructure is to be provided.

3.2 ACCESS ROADS

3.2.1 Site access will be the existing access used for current operations. The site has a metalled surface entrance road which is at least 7m wide and will enable vehicles to be kept left.

3.2.2 The road surface will be repaired and maintained as necessary.

3.2.3 Any repairs undertaken at the discretion of the Site Manager will be noted in the site diary.

3.3 MAIN SITE ROAD

3.3.1 From the landfill reception area, a main site road will be provided to the general working level. This will be constructed from consolidated stone or hardcore and will be maintained in a condition appropriate to its use with suitable road-making materials, which will be delivered to the site in the course of operations.

3.3.2 A stockpile of suitable material will be maintained on site for this purpose.

3.4 SUBSIDIARY SITE ROADS

3.4.1 From the end of the main site road, subsidiary site roads will be marked, coned or otherwise indicated to direct traffic to the working face. These roads will be formed either from hardcore when conditions necessitate or will otherwise be unsurfaced with the vehicles running directly on the material; subject to traction needs of the vehicles using the site.

3.5 WHEEL AND VEHICLE CLEANING

3.5.1 A road sweeper will be used on an ad hoc basis and when deemed necessary as per the mud management plan.

3.6 WEIGHBRIDGE

3.6.1 All loads of waste will be weighed at the weighbridge as shown on Drawing ESSD 4.

3.7 OFFICE/BUILDINGS

3.7.1 Office accommodation will be provided at locations shown on Drawing No. ESSD 4, and will be equipped with heat, light, water and telephone links together with appropriate manning. Car parking for vehicles will be provided.

3.7.2 A copy of the Permit and associated documents and plans are on display or available in electronic format in the offices.

3.8 FUEL STORAGE

3.8.1 A fuel storage tank banded to 110% of its capacity will be provided within the plant support area. All oil wastes will be collected for safe disposal or recycling.

3.9 LANDFILL PLANT

3.9.1 Plant to be used in the landfill will consist of a hydraulic excavators and loading shovels. All plant will be regularly serviced as per the maintenance plan within the EMS forms

4. SITE OPERATIONS

4.1 GENERAL CHECKING/TICKET ISSUE

The company proposes to sign the Waste Transfer Notes at time of delivery to the weighbridge. If the waste is not compliant, the Waste Haulier required to remove the waste from the site. The company copy will be filed and retained.

4.1.1 Inspection of all loads prior to unloading will be carried out in accordance with the Waste Acceptance Procedure. As a further measure, the operator at the working area during deposition will inspect deposited loads.

4.1.2 A Visitor's Book will be kept and all visitors will be required to report to the Site Manager and be signed in and out.

4.2 WASTE ACCEPTANCE AND DISPOSAL CRITERIA

4.2.1 General

We will only accept waste, which is compliance with the licence waste types. The Waste Acceptance Procedure is presented as part of the application documents.

4.3 REJECTION OF MATERIALS

4.3.1 Two circumstances of rejection will be possible:

(a) Rejection during compaction – non-compliant waste.

(b) Consignment note does not describe waste accurately.

In these circumstances, materials may be removed off-site for disposal elsewhere, following discussions with the EA.

Facilities exist for secure overnight parking if necessary:

4.4 NON-CONFORMANCE PROCEDURES FOR REJECTED MATERIALS

4.4.1 H Evason & Co will operate a non-conformance system for rejected loads, problematic waste delivered, and health and safety procedures of Carriers of Waste as a means of discharging their Duty of Care and as part of the Company EMS procedure. A copy of the load rejection log is contained in the WAC.

4.4.2 A non-conformance is an incident which breaches the Waste Disposal Licence, Duty of Care and the Safety Rules of the landfill.

4.4.3 Typical examples of non-conformance that can occur and need to be recorded are listed below:

Wastes not acceptable within the range of wastes set in the Environmental Permit;
waste transfer note problems
Breach of statutory regulations
Misdescribed wastes.

4.4.4 Where a non-conformance occurs, the Site Manager shall:

(a) Obtain sufficient information from the carrier and producer of the waste and document details of the incident in the landfill logbook.

(b) The Site Manager will investigate the causes of the incident and will also implement the required corrective actions.

4.4.5 The Site Manager shall ensure that corrective actions are carried out within agreed deadlines.

4.4.6 Once the corrective action has been carried out to the satisfaction of the Site Manager, the site manager will sign off the logbook as complete.

4.5 BRIEFING OF OPERATIVES

4.5.1 The operator at the working face will be fully briefed as to materials licensed to be deposited on site and will be under instruction to inspect each load before it is compacted and to report any irregularity to the Site

Manager so that appropriate action can be taken. This will typically be:

- (a) Isolate load or item in the working area.
- (b) Inform the Site Manager who will :-
Inform NRW
- (c) In consultation with NRW appropriate actions will be taken.

4.6 COMMUNICATION ON-SITE

4.6.1 Communication will be maintained between relevant personnel by two-way radio.

4.7 VEHICLE CIRCULATION ROUTES

4.7.1 On-Site

Vehicles will be instructed to keep left on the access road and the main site road. In the working area, circulation routes will vary according to operational needs.

4.7.2 Off-Site

On leaving the site, all HGV's will be required to be cleaned when deemed necessary by site management and follow any traffic routing agreement for the site. An appropriate sign will be erected at the site exit if required.

4.8 METHOD OF LANDFILLING

4.8.1 Soils will be tipped and pushed into thin 300mm layers and subject to compaction.

4.8.2 No waste will be deposited into standing water. Pumping will take place where necessary to de-water or maintain a de-watered situation prior to commencement of deposition within such area.

4.8.3 Surface water run-off will be diverted from the active working area.

4.8.4 The depth of each lift will be 1000mm when instructed by the engineer.

- 4.9.5 Materials, once deposited, will not be excavated without the consent of the NRW, except to comply with any relevant Code of Practice or legal enforcement notice.

4.10 LITTER CONTROL

- 4.10.1 Due to the nature of the waste no litter screens will be required.
- 4.10.2 Waste produced on site, which is not licensed for disposal at Parrys Quarry landfill is removed by an approved Registered Carrier of Waste to a suitably permitted facility.

4.11 DUST CONTROL

- 4.11.1 The entrance area will be sprayed with water when conditions necessitate.
- 4.11.2 Working areas will also be sprayed if absolutely necessary, although in general terms it is preferable to minimise this as an operation. The exclusion of water from landfill is beneficial rather than adding to the loading of the landfill.
- 4.11.3 Operatives working in the area of waste deposition will be provided with equipment appropriate to their task and the Environment. It will be sufficient to comply with any relevant Code of Practice, e.g. protective clothing, face masks, etc.
- 4.11.4 The site will comply with the Dust Management Plan and all staff will be made aware of then plan prior to commencement of operations

4.12 MUD ON ROADS

- 4.12.1 The site egress will cleaned using a tractor and brush or road sweeper hired in on an ad hoc basis.
- 4.12.2 In the case of breakdown or emergency, when conditions dictate, road-sweeping equipment will be hired locally on an ad hoc basis.

4.13 DUST SUPPRESSION

4.13.1 At the direction of the Site Manager, spraying to suppress dust will be carried out. A bowser will be kept on site for such circumstances, such as during asbestos waste deposition.

4.14 RECORD KEEPING

4.14.1 Records will be kept on site regarding levels of waste input for the EA.

4.14.2 Input will be recorded in terms of tonnes per month and will be forwarded to the EA on a quarterly basis within 14 working days of the month end by the Site Manger.

4.14.3 An electronic site diary will be kept of site recording all events of each day and all service records for plant including the weighbridge.

4.15 PLANT MACHINERY

4.15.1 Appropriate mobile plant will be employed. It is anticipated that the plant completion will be similar to that described below:

Landfill

2 x loading shovels
2 x excavators
1 x water bowser
1 x tractor and brush

4.15.2 All plant is to be maintained as per the service schedules attached in the EMS forms and all records of services are to be kept at the site office. This will ensure that plant operates efficiently. In the event of breakdowns replacement requirement will be hired in within 24 hours to replace equipment under repair.

4.16 FIRE PRECAUTIONS

4.16.1 No wastes will be burned within the site.

4.16.2 Any outbreak of fire will be treated as an emergency and Fire Department will be informed and NRW as soon as possible.

4.17 LIGHTING

- 4.17.1 Lighting shall be provided on site to adequately illuminate operational areas during hours of darkness as defined by the Science and Engineering Research Council.
- 4.17.2 If considered necessary, mobile lighting rigs are to be used in conjunction with adequate lighting on the site machines. The rigs and machine lights will comply with the Mines and Quarries Regulations 1999.

4.18 FENCING AND SECURITY

- 4.18.1 The fencing is with post and two strands of wire, around the perimeter of the site offices and weighbridge.
- 4.18.2 Site gates shall be located at the access and shall remain locked outside working hours.
- 4.18.3 The site shall remain securely fenced and shall be kept in good repair. Records of inspections will be held in the site office.
- 4.18.4 If a hole or breach is found during the daily inspection then temporary repairs will be undertaken on the day of inspection and full repairs within 3 working days.
- 4.18.5 The site has security camera located on site that allow viewing of site offices, landfill and plant parking area.
- 4.18.6 Camera locations and gates are shown on Drawing ESSD4.

4.19 ACCIDENTS AND EMERGENCIES

- 4.19.1 In the event of an accident or emergency both Health and Safety or environmental the relevant Regulator will be informed and an accident log will be completed as per the attached EMS forms.
- 4.19.2 A spillage procedure is set out within the forms dealing with a spillage of site from fuel or servicing.

5. ENVIRONMENTAL MONITORING

5.1 GENERAL

5.1.1 Results of on-site monitoring will be retained on site and will be available for inspection and forwarded to the DEFA in accordance with the Waste Disposal Licence.

5.2 GROUNDWATER

5.2.1 Groundwater will be sampled from the peripheral groundwater monitoring boreholes shown on Drawing No. ESSD 11 on a quarterly basis.

5.2.2 Groundwater sampling will be by use of low flow pumps.

5.2.3 Groundwater level will be monitored by use of a dip meter.

5.3 LEACHATE

5.3.1 Leachate monitoring is not required on an inert landfill site.

5.4 LANDFILL GAS

5.4.1 Limited low volumes of gas will be generated on this site due to the nature for the material being landfilled.

5.4.2 Quarterly landfill gas monitoring will be carried out from the boreholes.

5.4.3. Treatment of potential odours is detailed in the odour management plan and will most likely consist of carbon filters if required

5.5 SURFACE WATER

5.5.1 Surface water will be monitored at the point of discharge to ensure compliance with the Discharge Consent and will follow the surface water management plan on amonthly basis and up and down stream

6. AMENITY MONITORING

6.1 NOISE MONITORING

6.1.1 Noise monitoring will not be required at this facility unless there is a complaint. A copy of the compliant form is presented in the EMS forms.

6.1.2 The site has a Noise and Vibration Management Plan which sets out the procedures in the event of a complaint for monitoring, in the event of noise monitoring.

6.2 DUST MONITORING

6.2.1 A visual inspection for dust will be carried out each working day and actions recorded in the site electronic diary. No formal dust monitoring is required but asbestos air monitoring is required as set out below.

6.2.2 A full weather station is located at site that will record wind speed and direction.

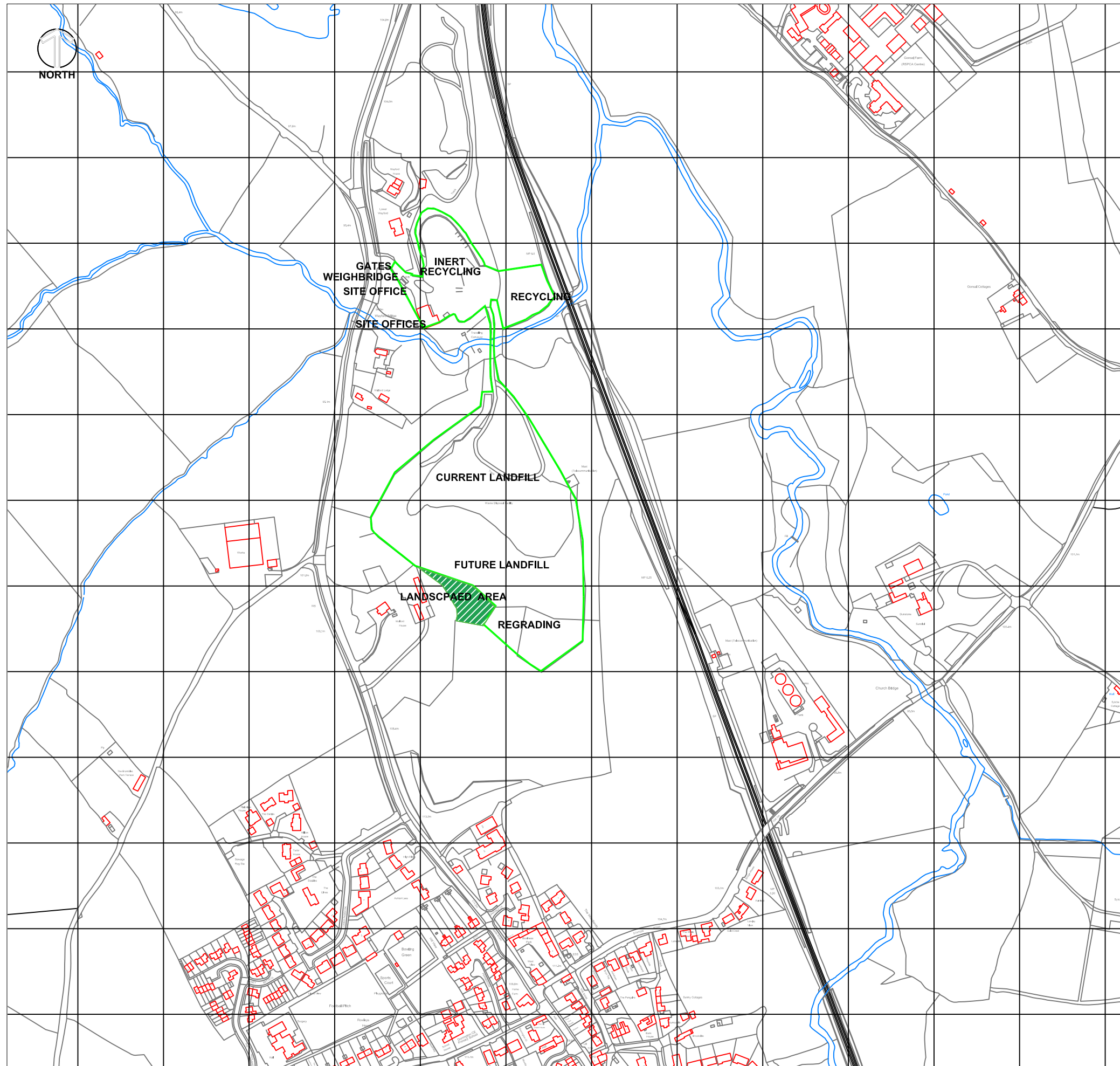
6.2.6 The site has a Dust Management Plan which sets out the procedures in the event of a complaint.

7 RESTORATION

7.1 GENERAL

- 7.1.1 The site is to be finished as a domed site to the south and as a flat piece of land to the north of the tributary to the Cound Brook. Infrastructure will remain such as internal gas monitoring points and external gas and groundwater monitoring points.

DRAWINGS



Legend

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Client: **H Evason**

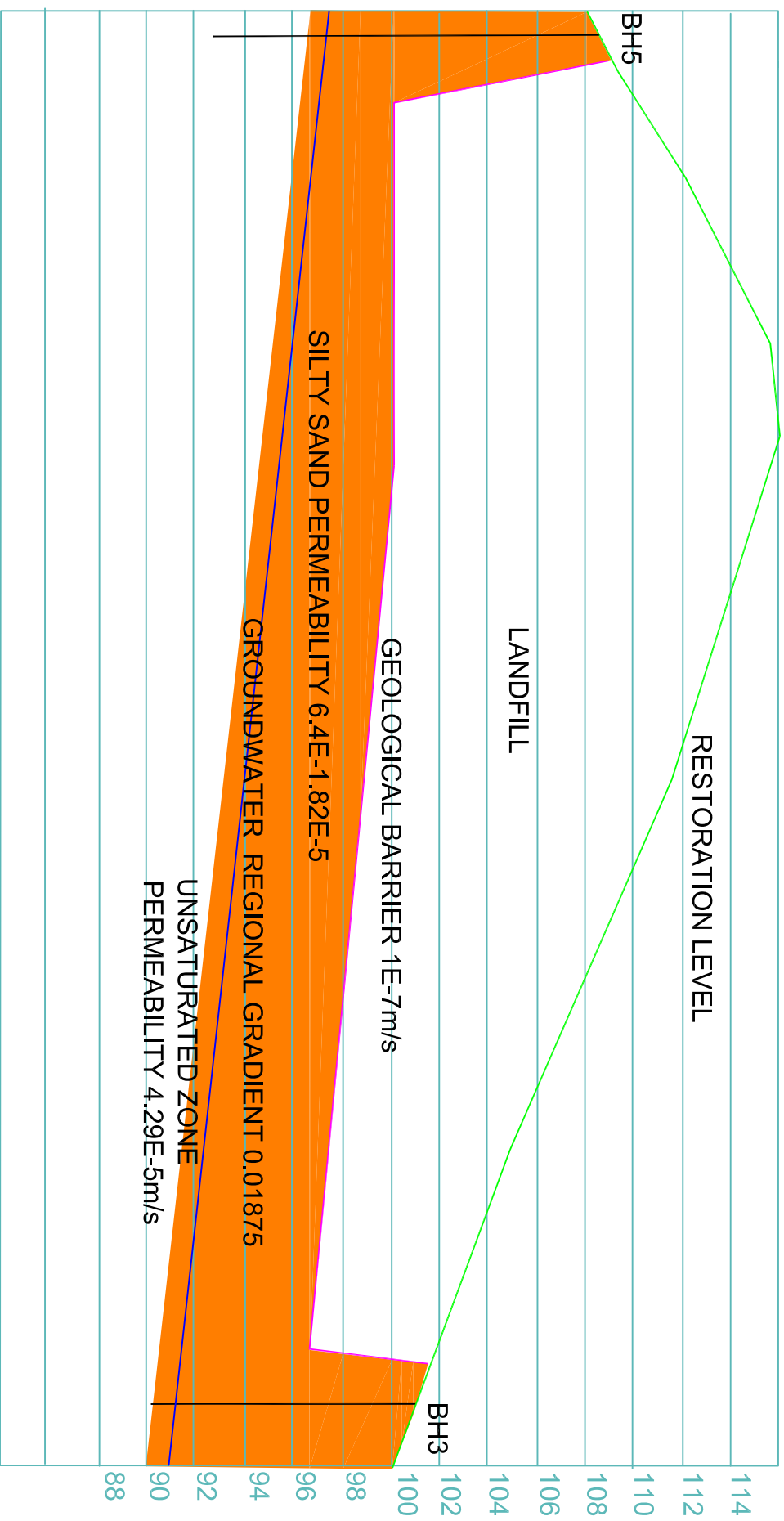
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Dorrington, Shropshire**

Title: **Site Layout and Waste Deposition**

CAD Ref: EL/DQP/1	Version: 1	Drawn by: ARM	Scale: Plan 1:1500@A3	Date: January 2021
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Drawing: **ESSD 4**

ENVIROARM LIMITED



Legend
○ BH 5 Groundwater Monitoring

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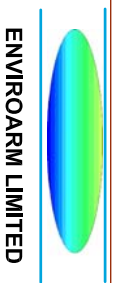
Client: **H Evason**

Project: **Dorrington Quarry
Dorrington, Shropshire**

Title:

Conceptual Model

CAD Ref:	Version:	Drawn by:	Scale:	Date:
EL/DQP/1	1	ARM	Plan 1:1500@A3	January 2021



ENVIROARM LIMITED

Drawing:
ESSD 11

APPENDIX A:

EMS Forms

<p style="text-align: center;">ENVIRONMENTAL MANAGEMENT SYSTEM FORMS</p>	<p>Have you completed the template for your site and has it been filed?</p>	<p>Signed by: Date:</p>
<p>1. Environmental Impacts Plan and Controls</p>		
<p>2. Accident / Pollution Incident Management Plan, including;</p> <p>A – Site Plan</p> <p>B – Key Site and Emergency Contacts</p> <p>C – List of Substances and Storage Facilities</p> <p>D – Preventing Accidents... and what to do if they happen</p>		
<p>3. Maintenance Checklist and maintenance record</p>		
<p>4. Training Checklist / Record for your staff</p>		
<p>5. Complaints Form for recording complaints about your site from members of the public.</p>		
<p>6. Accident (and incident) recording form</p>		
<p>Appendix A Raw and Auxiliary Materials Assessment</p>		
<p>Appendix B Spillage Procedure</p>		
<p>Appendix C Electronic Site Diary</p>		

1. Environmental Impacts Plan and Controls

For each Process / Activity / Equipment identified in the Table 1 above complete the following tables if there is an environmental impact [at least High (H) or Medium (M)] under normal or abnormal operation (*the examples included are guidance only*)

Table 2A. Emissions to Air [A]						
Process / Activity / Equipment on Site	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure?	Person using the procedure received training?	Comments
Dust from site activity A (<i>landfilling waste in cells</i>)	Potential for local air quality issues from dust. Also, a cause for complaints	Yes- dust suppression and inside building	Yes Spray	Yes-Dust Management Plan	Yes	Site Induction All staff
Dust from site activity A (<i>plant traffic and site traffic</i>)	Potential for local air quality issues from dust. Also, a cause for complaints	Yes- dust suppression and water bowser	Yes Spray	Yes-Dust Management Plan Concrete roads	Yes	Site Induction All staff

Table 2B. Energy Usage [E]

Process / Activity / Equipment on Site	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure?	Person using the procedure received training?	Comments
Electricity usage for site offices	The impacts associated with electricity production are well documented (e.g. Air emissions) There is scope to reduce these impacts by using electricity efficiently on site.	All equipment is PAT tested and energy using light bulbs	N/A	YES-SITE RULES AND SIGNS	Yes	See Appendix A
Electricity usage for recycling station	The impacts associated with electricity production are well documented (e.g. Air emissions) There is scope to reduce these impacts by using electricity efficiently on site.	All lights to be turned off in out of hours	N/A	YES SITE RULES AND SIGNS	Yes	
All Plant	Dozer, Loading Shovel and Excavators	New engine, complies with EU Stage III 3a compliant	Yes	Yes R and M Contract with Volvo and CAT	Yes	
	Crusher	New engine, complies with EU Stage III 3a compliant	Yes	Yes R and M Contract Blue	Yes	
	Screener	New engine, complies with EU Stage III 3a compliant	Yes	Yes R and M Contract with Blue	Yes	
	Water Bowser		250 HOUR SERVICE		Yes	

Table 2D. Waste Disposal [D]

Process / Activity / Equipment on Site	Potential Impact	Is impact controlled by equipment ?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure ?	Person using the procedure received training?	Comments
e.g. Hazardous Waste from activity A (<i>state specific machine / activity</i>)	e.g. Chemicals, ink jet cartridges, fluorescent tubes, waste oils, all must be handled in accordance with Hazardous Waste Legislation					EMS Recycling Bins in offices
e.g. General unsorted waste	Waste from site offices sent to transfer station for sorting.					General rubbish sent to transfer station for sorting
Inert Treatment Facility	All non-hazardous waste tipped in transfer station sorted using selector grab and manual handling and loaded out	Yes	Yes	Yes-Working Plan	WAMITAB In house	

Table 2E. Nuisance (e.g. Noise, Odour) [N]

Process / Activity / Equipment on Site	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure ?	Person using the procedure received training?	Comments
Noise from site activities (<i>landfill and transfer station plant</i>)	Section III of the Environmental Protection Act 1990 , noise can be classified as a statutory nuisance	Yes,silencers on plant SAE J11166 OCT98 Compliance	Yes	Yes	Yes PPE	Operations carried out inside building
Noise from transport movement on site	Section III of the Environmental Protection Act 1990 , noise can be classified as a statutory nuisance	No	N/A	Yes site speed limit 10mph		Speed Limit 10mph
Odour from site activities (<i>landfill</i>)	Section III of the Environmental Protection Act 1990 , odour can be classified as a statutory nuisance	N/A	N/A			48 hours to move waste
Odour from site activities (<i>transfer station</i>)	Section III of the Environmental Protection Act 1990 , odour can be classified as a statutory nuisance	No	N/A	Yes		Waste turnaround 48 hours

Table 2F. Resource Consumption (not energy) [R]

Process / Activity / Equipment on Site	Potential Impact	Is impact controlled by equipment ?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure ?	Person using the procedure received training?	Comments
use of chemicals for activity A (<i>state specific activity</i>)	Harm to human health or escape to the local environment. Management of hazardous substances according to COSHH and Hazardous Waste Regulations	Yes	Yes	SOP Health and Safety File	Yes	See Health and Safety Files See Appendix A
use of hydraulic oil for machine A (<i>state specific machine</i>)	Harm to human health or escape to the local environment. Management of hazardous substances according to COSHH and Hazardous Waste Regulations	Yes	Yes	SOP Health and Safety File	Yes	See Health and Safety Files See Appendix A
use of water	Inefficient use results in natural resource depletion	Yes	Yes	SOP Health and Safety File	Yes	See Health and Safety Files See Appendix A
use of diesel	Harm to human health or escape to the local environment. Management of hazardous substances according to COSHH and Hazardous Waste Regulations	Yes	Yes	SOP Health and Safety File	Yes	See Health and Safety Files See Appendix A
use of antifreeze	Harm to human health or escape to the local environment. Management of hazardous substances according to COSHH and Hazardous Waste Regulations	Yes	Yes	SOP Health and Safety File	Yes	See Health and Safety Files See Appendix A

Table 2G. Land Contamination (e.g. storage of hazardous substances) [L]

Process / Activity / Equipment on Site	Potential Impact	Is impact controlled by equipment ?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure ?	Person using the procedure received training?	Comments
e.g. Storage of substance A (<i>Fuel Diesel Tank Storage</i>)	Substance A can cause harm to the ecotoxicity of the soil, and could leak into groundwater.	Yes	Yes	Yes	Yes	Impact assessed in RA
Inert Treatment Facility						Site Condition Report prepared to set baseline values

**Table 4. List of Procedures (list procedures identified in Table 2A to 2G above, and any other procedures you have in addition)
(use as many forms as required)**

Procedure Name	What process / activity / equipment does it relate to?	Where is the procedure kept?	Version Number	When was the procedure last reviewed?	Comments
Non-Hazardous Waste Transfer	Excavators Loading Shovels Tractor and Roller Crusher Screeners	Head Office and Site Office	Health and Safety File Standard Operating Procedures	2021	
	Tractor and Bowser	R& M Maintenance		2021	
COSHH ASSESSMENTS		Head Office and Site Office	Health and Safety File Standard Operating Procedures	2021	

2. Accident / Pollution Incident Management Plan

Further help is available from [Pollution Prevention for Business](#)

Created by: _M Evason Date: 01/022021

Review Date: _____ Version: _____

Accident / Pollution Incident Management Plan Contents

A – Site Plan

B – Key Site and Emergency Contacts

C – List of Substances and Storage Facilities

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

A – Site Plan

Insert site plan showing location 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 red),
 - surface water drainage (marked in blue)showing
 - the direction of flow and
 - the discharge points to the sewer
 - 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: Dorrington Quarry Landfill, Dorrington Shropshire			
Postcode:SY5 7EE			
Site Access Grid Reference: National Grid Reference (NGR) SJ 47554 03878			
SITE CONTACTS	Name	Office Hours (specify)	Out of hours
Owner:	H Evason	See master file on site	See master file on site
General Manager:			
Site Manager:	Mark Evason	See master file on site	See master file on site
Site Supervisor:		See master file on site	See master file on site
Security Contact:		See master file on site	See master file on site
Landowner / Agent:		See master file on site	See master file on site
EMERGENCY SERVICES		Office Hours	Out of hours
Emergency		999	999
Medical:			
Police:		999	999
Fire:		999	999
REGULATORS		Office Hours	Out of hours
Health and Safety Executive (HSE) Fax		0121 607 6344	0121 607 6344
Local Authority: Shropshire County Council		01352 703440	
Environment Agency		03708 506506	03708 506 506
EA (24 hour emergency hotline)		0800 80 70 60	0800 807060
UTILITY / KEY SERVICES	Name	Office Hours	Out of hours
Water undertaker:			
Sewerage undertaker:		Severn Trent	0800 783 4444
Gas supplier: TRANSCO			0800 0011 999
Electricity supplier:			0800 328111
Oil supplier:			
Fuel supplier:		TBC	
Chemical supplier:			
Oil spill contractor:			
Maintenance contractor:		Finlay, McCloskey,CAT,JCB	
Electrician:			
Plumber:			
OTHER KEY CONTACTS	Name	Office Hours	Out of hours
Head Office:			
Adjacent landowners:			
Neighbours:			
Specialist advisors:		Enviroarm Ltd	01922 412209

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

The objectives of the emergency plan are to make use of the combined resources of the site and outside services to:

- Effect the rescue and treatment of casualties.
- Safeguard other people.
- Minimise the damage to property and the environment.
- Prevent escalation and ultimately bring the incident under control.
- Restore the site to normal operations as quickly as possible.

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 incoming 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.	
Slow seepage of liquids from imported contaminated materials. Slow seepage can be less noticeable than 'spills'.		Incoming materials that are contaminated e.g cutting oil or tramp fluid on swarf, will only be stored on impervious surfaces that are drained to an oil interceptor	
<i>(Others: Please specify)</i>			
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.

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
<i>(Others: Please specify)</i>			
Failure of Plant or Equipment			
Leakages; due to faulty pipe work, valves, over-pressure, blockages, corrosion, severe weather, ground movement etc.	Contamination of land, drains, groundwater and watercourses..	Daily visual inspection and completion of weekly inspection checklist record. Preventative maintenance regime. 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.	
<i>(Others: Please specify)</i>			
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	Maintenance of up to date drainage plan. Maintenance of inventory of substances with material	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
	land, drains, groundwater and watercourses.	property details. Procedure for contractors to work on site including induction training and permit to work. Fail-safe filling systems.	
<i>(Others: Please specify)</i>			
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.
<i>(Others: Please specify)</i>			
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 do 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.
<i>(Others: Please specify)</i>			
Failure of Containment			
Failure of containment facilities due to land movement, impact,	Contamination of land, drains, groundwater and	Provision of secondary containment for hazardous liquids.	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
corrosion etc.	watercourses.	Inspection of primary and secondary containment facilities. Integrity testing of tanks and bunds & pressure loss alarms.	
<i>(Others: Please specify)</i>			
Vandalism			
Unauthorised entry and tampering or malicious damage to property, plant and equipment.	Contamination of land, drains, groundwater and watercourses.	Secure gate and secure wall. 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. Community Cameras	Spill response procedure as described above.

FIRE PROCEDURE

IMMEDIATE ACTION

Without risk to personal safety:

Inform the Site Manager immediately, who can assess the situation and arrange for the Emergency Services if necessary.

Ensure that all operations cease and mobile plant is moved out of the emergency area where possible.

Where possible, attempt to contain/extinguish the fire by use of water from the site tanker.

DO NOT RISK PERSONAL INJURY IN AN ATTEMPT TO CONTROL THE FIRE

The senior person on site is to liaise with the Emergency Services on their arrival, inform them about the fire and what action has been taken.

It is the responsibility of the Site Manager or his nominated deputy to remain with the Senior Fire Officer at all times.

4. Training Checklist (General Waste Sector Site)


POSITION	SITE MANAGER	SITE SUPERVISOR	PLANT OPERATIVE
<u>Legislation for Inert Landfill</u>			
(COTC) CERTIFICATE OF TECHNICAL COMPETANCE	AT LEAST ONE PERSON TO HOLD A COTC LEVEL 4 RELEVANT TO SITE OPERATIONS		
DUTY OF CARE			
ENVIRONMENTAL PERMIT			
PLANNING PERMISSION			
HAZARDOUS WASTE REGS			
WRAP/RECYCLING			
LANDFILL REGULATIONS			
<u>Procedures and Practices</u>			
WASTE ACCEPTANCE PROCEDURES			
ENVIRONMENTAL RISK ASSESSMENT			
TROMMEL OPERATION			
ROAD CLEANING OPERATION			
SORTING CRUSHING PROCEDURES			
INCIDENT AND EMERGENCY PROCEDURES			
SITE DIARY			
<u>Environmental Monitoring</u>			
DUST MONITORING			
ODOUR MONITORING			
MUD ON ROADS			
NOISE MONITORING			
LITTER MONITORING			
SITE INSPECTIONS			
<u>Other Skills</u>			
DUMP TRUCK			
EXCAVATOR OPERATION			
TRACTOR OPERATION			
WHEELED LOADER OPERATION			
SKIP LORRY OPERATION			
GRAB HANDLER OPERATION			
FIRE SAFETY – EXTINGUISHER			

POSITION	SITE MANAGER	SITE SUPERVISOR	PLANT OPERATIVE
TRAINING			
FIRST AID			
SAFETY AWARENESS			
DRIVING LICENCE			
ROLL ON OFF OPERATION			

1 KEY

	CORE SKILLS: Training / knowledge required prior to completion of probationary period.
	Additional Training / knowledge required in order to fulfil all roles within the position.
	Optional training for additional responsibilities not specific to position.

5. Complaints Record

Who made the complaint?	Name:	
	Address	
	 Phone No	
Date and time they made the complaint		
What happened, what was it about?		
Was anyone else aware of this – other neighbours or your staff? If so who?		
Did the complaint relate to your site? If so, what happened? What went wrong?		
What have you done to make sure that it does not happen again?		
Was there any significant pollution or environmental damage to land, water or protected areas – for example: dust, odour or noise pollution outside the site or spillage of polluting liquids onto the ground, or at a site of special scientific interest, or into a drain or a watercourse? (If so, then complete an incident form in Section 6)		
If there was (or still is), then you must take steps to prevent further damage and notify the NRW on 0300 065300 and any other relevant regulators ASAP . Have you done so? Yes / No	Who did you phone? At what time did you phone?	
You must also write or send an email to confirm this to the local office (see your accident management plan for the address) Have you done so?	Yes/No What date did you contact?	
Please print your name and sign:		

Continue overleaf or on a separate sheet if you do not have enough room.
Keep the completed form in the file to discuss with the NRW when they visit.

6. Accident (and Incident) Record

Record of accidents, incidents or near misses

Date and time of the incident	
What happened, what was it about?	
Was anyone else aware of this – other witnesses? If so who?	
What caused it?	
What have you done to make sure that it does not happen again?	
Was there any significant pollution or environmental damage to land, water or protected areas – for example: dust, odour or noise pollution outside the site or spillage of polluting liquids onto the ground, or at a site of special scientific interest, or into a drain or a watercourse? If so what?	
Is there a continuing threat? Yes / No	
If there was (or still is), then you must take steps to prevent further damage and notify the NRW on 0300 065300 and any other relevant regulators ASAP. Have you done so? Yes / No	Who did you phone? At what time did you phone?
You must also write or send an email to confirm this to the local office (see your accident management plan for the address) Have you done so?	Yes/No What date did you contact?
Please print your name and sign	

Continue overleaf or on a separate sheet if you do not have enough room.
Keep the completed form in the file to discuss with the NRW when they visit.

Appendix A

RAW AND AUXILIARY MATERIALS SELECTION AND MINIMISATION ASSESSMENT

1. Identification of Materials

- 1.1 All materials supplied for use at the site are delivered against an invoice or some other delivery docket. Appropriate records of such deliveries are to be kept. Additionally waste materials that may have a secondary use will be directed from the weighbridge to the materials recycling facility wherever possible.
- 1.2 The principal bought-in material is fuel oil for the site plant and machinery. This is supplemented with hydraulic oils, lubricating oils, coolants and antifreeze and grease.
- 1.3 The chemical composition of such materials is readily available.
- 1.4 At times, insecticides and vermin control bait will be purchased for use or brought to site by Contractors. Proprietary brands are to be used and their chemical composition will be readily available from statutory labelling on the containers. Product data sheets are to be retained on site where available. Ideally these products will have formal approval for use by DEFRA.
- 1.5 The Office at the site operates as any other administrative centre and uses paper, envelopes, printer and toner cartridges, correction fluid, etc. Normal, good housekeeping is expected to reduce their consumption.
- 1.6 Water is supplied for operational site management (laying dust, washing down plant and equipment, as a coolant in plant and machinery, etc), collected as surface water runoff.
- 1.7 Where safe and practicable, water for such use is to be drawn from surface water impoundments.
- 1.8 The Office has mains electric to the office.

2. **Fate of Materials**

- 2.1 Fuel oil is burnt in the various internal combustion engines and, essentially, all is then emitted to the atmosphere as carbon dioxide and water in the exhaust.
- 2.2 Lubricating and hydraulic oils are used in topping-up and in programmed replacement. Oils that are drained out of plant and machinery are to be safely recovered and disposed off-site.
- 2.3 Grease is lost during wear and ultimately falls to the ground.
- 2.4 Chemicals used for insect and vermin control will all be used as 'product' and its fate will be into the body of the waste mass itself.

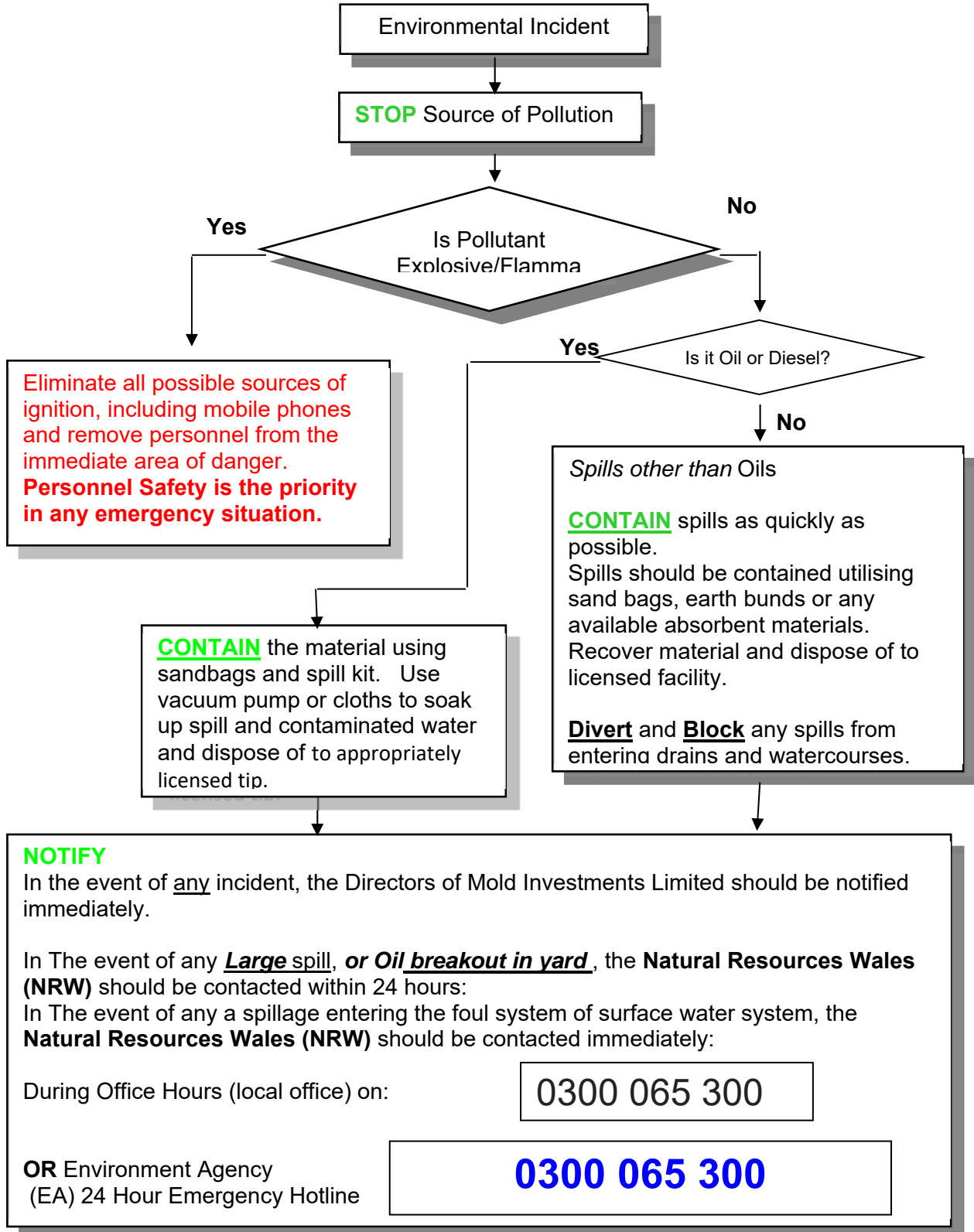
3. **Other Considerations**

- 3.1 There are no practical alternatives to the fuel, hydraulic and lubricating oils and grease used on the site plant and machinery.
- 3.2 Only preparations approved for use by any appropriate Regulations are to be used either by site personnel or Contractors. These, of course, may change during the life of the site with more 'environmentally friendly' preparations coming to market: in which case, consideration is to be given to using such preparations, having regard to their effectiveness.
- 3.3 The Company expects and requires its management, staff and site operatives only to purchase and use raw and auxiliary materials as are sufficient for the duty or purpose envisaged. Care and attention during removal from containers, avoidance of spillages and correct dosing are expected to minimise their consumption.

APPENDIX B: SPILLAGE PROCEDURE

Environmental Incident Response Procedure

STOP – CONTAIN – NOTIFY



APPENDIX C: SITE DIARY ELECTRONIC

Inspection of:	RESULT OF INSPECTION		INITIALS
FENCES & GATES	↓ O.K	↓ NOT O.K (note reasons & actions required below)	
ROAD SURFACE	↓ O.K	↓ NOT O.K (note reasons & actions required below)	
DUST SUPPRESSION	↓ O.K	↓ NOT O.K (note reasons & actions required below)	
HOUSEKEEPING	↓ O.K	↓ NOT O.K (note reasons & actions required below)	
DUST CONTROL	↓ O.K	↓ NOT O.K (note reasons & actions required below)	

INFORMATION TO BE RECORDED			
TCM attendance at site	Name:	Time on	Time off
	Name:	Time on	Time off

SAMPLING / MONITORING EXERCISES	RESULTS OR REFERENCE TO RESULTS
Wind Direction	

Maintenance of Plant and Equipment	Comments
Road Sweeper Visit	↓ Yes ↓ No

NRW Visit To Site. Δ Yes Δ No	Actions Required Δ Yes Δ No
NRW Officer: Name	Signature

Incidents / Events / Complaints / Non-Conformances /Actions Required
(N.B. Give a reference to any reports external to the diary)

Use overleaf if further space is required

SIGNATURE OF TCM (AFTER COMPLETION AND REVIEW).....

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