

**Working Plan for Transfer Station
operated by JLA Recycling Ltd**

Tir Canol Landfill, Swansea. SA9 2QQ

Permitted site EAWML 34190.

EMS Version	Date	Revision
5	July 2018	Inclusion of shredding and environmental risk assessment

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1 INTRODUCTION

This document is the current Working Plan for a Transfer Station site operated by JLA Recycling Ltd at Tir Canol Landfill near Ystradgynlais, Swansea. The site is located at National Grid Reference SN 774 115 and is shown on Figure 1 and 2. The site is Permitted by Natural Resources Wales under Permit No. EAWML 34190.

The Transfer Station site is intended to receive domestic refuse waste from the public and commercial sources. It is to be collected in a series of designated skips and holding facilities, prior to it being recycled or transferred to a suitably licensed waste facility.

The site has full planning permission No. B006850 dated 5 August 1992 and granted by Brecknock County Council. The consent for planning for the transfer station site was included within the permission for the phase 1 landfilling operation at Palleg Road Landfill, granted at the same time.

This working plan has been updated as the operation has developed and regulations changed. This latest update (June 2018) is to allow shredding (D13) as a waste treatment activity at the site. Essentially the plan describes and assesses the risk of the waste management operations, and includes management and monitoring techniques that would be used to mitigate the effects.

The risks are evaluated in an Environmental Risk Assessment presented in Appendix 1. The measures in place to control the risks are detailed in this Working Plan.

2 GENERAL CONSIDERATION

2.1 Specified Waste Management Operations

2.1.1 Waste Characterisation and Delivery

The transfer station site is to be used by the general public and commercial sources, bringing general domestic, industrial and commercial refuse for disposal and recycling. The majority of delivered waste to the site is via commercial vehicles. However, some waste is delivered by the General Public that have been turned away from the Powys BWRC at Bethel Road, either due to the site being closed or their vehicles are of a type not accepted e.g. vans or trailers over 1.4m. Plasterboard is not accepted at the Bethel Road or Brecon sites. All vehicles entering the site will have to pass the office and therefore, any unauthorised vehicles will be identified immediately. Commercial vehicles enter the site via the weighbridge.

Table 2-1 Specified Waste Management Operations

Specified Waste Management Operation	Permitted Waste Types Which May Be Subject To The Specific Operation	Limits on Specified Waste Management Operations
Storage pending disposal or recovery (D15, R13)	All	164 tonnes
Physical treatment of waste (D9, D13)	All	Treatment consisting of physical sorting or separation of waste into different components, physical mixing or bulking of solid wastes of the same or different types, shredding, where there are no resulting changes in the chemical composition of the wastes or its different components. There shall be no mixing or dilution of different types of wastes in liquids or sludges.
Recycling of metals (R4)		Treatment only refers to removal of loose material, foodstuffs, doors, compressors etc
Storage (R13) pending any waste treatment operations (R1 to R12) excluding temporary storage, pending collection, on the site where it is produced	Waste refrigeration equipment Loose material and foodstuffs removed	Up to 9.9 tonnes of equipment can be stored for 12 months prior to treatment and 3 years after treatment Loose material and foodstuffs should be stored in containers

i) Risk

The main risk associated with the delivery of waste in the fashion described is the possibility that inappropriate waste is brought in, or waste is placed into the wrong designated container.

It is considered that the risk of waste brought to the site, which would not be accommodated by the available storage and re-cycling bins, is small.

ii) Management

Should any person bring to the site a waste that could not be considered for disposal at the transfer station site, they would be given guidance as to which licensed facility would be able to accept it. However, it is possible that items are inadvertently brought to the transfer station site which are special wastes or are considered dangerous, with further transportation increasing in danger. Should this be the case then the appropriate contacts would be made with the NRW and the Emergency Services.

Any inappropriate waste would be placed into the emergency skip as shown in Figure 3. If the materials were considered to be immediately dangerous to human health, the site operator would close the transfer station until the danger was removed.

iii) Monitoring

Monitoring of the correct placement of the wastes would be made by supervision by the site operators' staff. At the end of each working day an examination would be made of the content of each container to ensure that waste streaming was satisfactory.

The site operators staff would also monitor the induction of inappropriate special wastes or dangerous materials to the site and would be responsible for actions to resolve the situation i.e. placement of the waste into the appropriate emergency area skip or even closure of the transfer station.

2.1.2 Waste Storage

Under normal operating conditions, the site aims to process waste on the same day as delivery. Processed waste storage at the site will be facilitated by a series of skips, containers, recycling bins and cages. The general layout of the transfer station and the location of waste storage and treatment areas is shown on Figure 3.

2.1.3 Waste Treatment

General waste at the site is sorted to remove any recyclable materials then shredded where ferrous metal is removed the remaining waste is then loaded into ADT's and transported to the adjoining landfill for disposal.

The hardcore or builders rubble will be stored/crushed/screened as necessary. It is likely that the builders' rubble waste will be taken to the nearby Palleg Road Landfill licensed to accept such materials. Suitable hardcore materials may be recycled.

Garden waste will be stored in the exempt area. . The compost will be utilised on site.

Scrap metal will be stored in an 8 – 20 tonne skip located within the sunken bay. The scrap metal will be taken for recycling once the skip is full.

2.1.2.1 Exempt Wastes

These wastes are exempt from licensing and are listed in Appendix 2. A brief description of their storage is provided.

Timber is removed from the bay and stored in the exempt area.

2.2 Permitted Wastes

The wastes permitted to be stored at the site will concur with the coding provided in the Permit. The coding for each waste type anticipated at the transfer station is listed below:-

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Table 2-2 Permitted Wastes

Waste Type	EWC Code	Storage Location	Maximum Quantity
End of life tyres	16 01 03	Area B	No limit, subject to maximum storage capacities
Ferrous metal	16 01 17	Area B	No limit, subject to maximum storage capacities
Non-ferrous metal	16 01 18	Area B	No limit, subject to maximum storage capacities
Glass	16 01 20	Area B	No limit, subject to maximum storage capacities
Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12	16 02 13	Area B	No limit, subject to maximum storage capacities
Inorganic wastes other than those mentioned in 16 03 03	16 03 04	Area B	No limit, subject to maximum storage capacities
Gases in pressure containers (including halons) containing dangerous substances	16 05 04*	Area A	No limit, subject to maximum storage capacities
Lead batteries*	16 06 01	Area A	No limit, subject to maximum storage capacities
Concrete	17 01 01	Area B	No limit, subject to maximum storage capacities
Bricks	17 01 02	Area B	No limit, subject to maximum storage capacities
Tiles and ceramics	17 01 03	Area B	No limit, subject to maximum storage capacities
Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	17 01 07	Area B	No limit, subject to maximum storage capacities
Wood	17 02 01	Area B	No limit, subject to maximum storage capacities
Glass	17 02 02	Area A	No limit, subject to maximum storage capacities
Plastic	17 02 03	Area B	No limit, subject to maximum storage capacities
Bituminous mixtures containing coal tar	17 03 01	Area B	No limit, subject to maximum storage capacities
Bituminous mixtures other than those mentioned in 17 03 01	17 03 02	Area B	No limit, subject to maximum storage capacities
Mixed metals	17 04 07	Area B	No limit, subject to maximum storage capacities
Cables other than those mentioned in 17 04 10	17 04 11	Area B	No limit, subject to maximum storage capacities
Soil and stones other than those mentioned in 17 05 03	17 05 04	Area B	No limit, subject to maximum storage capacities
Insulation materials other than those mentioned in 17 06 01 and 17 06 03	17 06 04	Area B	No limit, subject to maximum storage capacities
other wastes (including mixtures of materials) from mechanical treatment of waste other than those mentioned in 19 12 11	19 12 12	Area B	No limit, subject to maximum storage capacities
Gypsum-based construction materials contaminated with dangerous substances	17 08 01*	Area B	No limit, subject to maximum storage capacities
Paper and cardboard	20 01 01	Skip Area A	No limit, subject to maximum storage capacities
Glass	20 01 02	Skip Area A	No limit, subject to maximum storage capacities
Clothes	20 01 10	Skip Area A	No limit, subject to maximum storage capacities
Textiles	20 01 11	Skip Area A	No limit, subject to maximum storage capacities
Solvents	20 01 13*	Skip Area A	No limit, subject to maximum storage capacities
Acids	20 01 14*	Skip Area A	No limit, subject to maximum storage capacities
Alkalines	20 01 15*	Skip Area A	No limit, subject to maximum storage capacities
Pesticides	20 01 19*	Skip Area A	No limit, subject to maximum storage capacities
Flourescent tubes and other mercury containing waste	20 01 21*	Skip Area A	No limit, subject to maximum storage capacities
Discarded equipment containing chlorofluorocarbons	20 01 23*	Skip Area A	No limit, subject to maximum storage capacities
Edible oil and fat	20 01 25	Skip Area A	No limit, subject to maximum storage capacities
Oil and fat other than those mentioned in 20 01 25	20 01 26*	Skip Area A	No limit, subject to maximum storage capacities
Paint, inks, adhesives and resins containing dangerous substances	20 01 27*	Skip Area A	No limit, subject to maximum storage capacities
Paint, inks, adhesives and resins other than those mentioned in 20 01 27	20 01 28	Skip Area A	No limit, subject to maximum storage capacities
Detergents containing dangerous substances	20 01 29*	Skip Area A	No limit, subject to maximum storage capacities
Detergents other than those mentioned in 20 01 29	20 01 30	Skip Area A	No limit, subject to maximum storage capacities
Cytotoxic and cytostatic medicines	20 01 31*	Skip Area A	No limit, subject to maximum storage capacities
Medicines other than those mentioned in 20 01 31	20 01 32	Skip Area A	No limit, subject to maximum storage capacities
Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries	20 01 33*	Skip Area A	No limit, subject to maximum storage capacities
Batteries and accumulators other than those mentioned in 20 01 33	20 01 34	Skip Area A	No limit, subject to maximum storage capacities
Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components (6)	20 01 35*	Skip Area A	No limit, subject to maximum storage capacities
Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	20 01 36	Skip Area A	No limit, subject to maximum storage capacities
Wood containing dangerous substances	20 01 37*	Skip Area B	No limit, subject to maximum storage capacities
Wood other than that mentioned in 20 01 37	20 01 38	Skip Area B	No limit, subject to maximum storage capacities
Plastics	20 01 39	Skip Area A	No limit, subject to maximum storage capacities
Metals	20 01 40	Skip Area A	No limit, subject to maximum storage capacities
Wastes from chimney sweeping	20 01 41	Skip Area A	No limit, subject to maximum storage capacities
Other fractions not otherwise specified	20 01 99	Skip Area A	No limit, subject to maximum storage capacities
Biodegradable waste	20 02 01	Skip Area A	No limit, subject to maximum storage capacities
Soil and stones	20 02 02	Skip Area B	No limit, subject to maximum storage capacities
Other non-biodegradable wastes	20 02 03	Skip Area B	No limit, subject to maximum storage capacities
Mixed municipal waste	20 03 01	Skip Area A	No limit, subject to maximum storage capacities
Waste from markets	20 03 02	Skip Area B	No limit, subject to maximum storage capacities
Street Cleaning residues	20 03 03	Skip Area B	No limit, subject to maximum storage capacities
Bulky waste	20 03 07	Skip Area B	No limit, subject to maximum storage capacities
Municipal wastes not otherwise specified	20 03 99	Skip Area B	No limit, subject to maximum storage capacities

2.3 Hours of Operation

The transfer station site will be open at the following hours:-

8:00am to 12.00pm	Saturday
8:00am to 4.30pm	Week Days (Winter) (5.00pm Summer)
Closed	Bank Holidays (except by arrangement)
Closed	Christmas Day
Closed	Boxing Day
Closed	New Year's Day

Outside these hours no waste will be permitted into the site.

3 SITE ENGINEERING DETAILS

3.1 Site Surface and Drainage Systems

The waste reception and treatment area comprises an impermeable pavement as shown on Figure 3. Waste will not be stored on ground that does not have an impermeable pavement and a sealed drainage system. The upper level of the site (which houses skips) is considered to be a clean area, with the majority of the containers being re-cycling bins and lockable containers. The lower area is considered to be dirty with an increased risk of spillage.

The floor of the transfer station yard will comprise a reinforced concrete slab laid with suitable falls to accommodate leachate collection or the run-off of surface water. The remainder of the yard will comprise an asphalt surface bounded by raised concrete kerbs, which will provide a barrier to liquids.

Any liquid which falls onto the floor area in the lower level will be directed into initially an open channel and then into a sealed drainage system. All the surface water falling onto the upper level will be considered clean. It is likely that in the lower level area where the main vehicular movements will occur an open drain is present, and would comprise of a simple channel cast into the concrete. Blockages would be easily identified by visual inspection and rectified by removal of the material concerned.

In the upper level precipitation falling in this area will be directed to the surface water drainage system running along Palleg Road, as this water will be uncontaminated. From this point, water will be piped out onto the roadside ditch. Should any spillage's occur in the upper level, which are considered harmful, a one way valve located at the collection point would be shut off and absorbent granules will be applied immediately to reduce the spillage area. The resultant sludge will be cleaned and placed in an appropriate container, before being taken to an appropriately licensed landfill.

3.1.1 Risk

The main risk at the site is that the impermeable layer and the drainage system forming the transfer station yard are inadequate, become defective or are damaged in some way, which could lead to the contamination of surface or groundwater.

Additionally, if a spillage occurs in the upper level and the valve is not shut off, then potentially contaminated water could flow into the surface water ditches along the road.

3.1.2 Management

The materials used in the formation of the floor of the yard will be asphalt and concrete which will provide a dense impermeable layer to the egress of liquid contaminants.

The use of shallow grades throughout all areas will also prevent any form of leachate hydraulic gradient building up and all contaminated fluids will be directed to the installed sealed drainage system. The sealed drainage system would comprise materials that would be robust with regards to physical damage and resistant to chemical attack.

Nearly all the containers in the upper level will be recycling bins. No putrescible materials will be collected and stored here and therefore, apart from isolated spillages, the risk from contamination is

considered to be very small. Only in the lower level will waste materials likely to cause contamination be sited. The run-off from this area is contained entirely within the sealed drainage system.

3.1.3 Monitoring

Monitoring would comprise a simple maintenance schedule as described below.

At the Palleg Road transfer station site this would comprise a daily walkover visual examination. Any defects would be recorded in the site diary. Once recorded the necessary repairs, if any, would be completed if practicably possible within one week.

The oil interceptor will be inspected on a weekly basis or after a known spillage event to ensure that it does not over spill. Details would be recorded on the appropriate daily inspection sheet.

Once it is full, arrangements would be made to empty it with the appropriate waste carrier. The oil interceptor will be fully emptied and maintained on a 6 monthly basis.

2.4 Fixed Tank Storage

This is no longer necessary as we no longer accept waste oil due to the closure of the BWRC.

2.5 Other Waste Storage

The other wastes on site will be held in recycling bins and container skips, which will provide the engineered containment.

Should any defective containers be provided by any contractor, then they would be immediately informed by the site operations staff to remove it and replace it with another.

4 SITE INFRASTRUCTURE

4.1 Site Security

The site at Palleg Road measures approximately 1,414m². The site entrance will be shared by traffic to the transfer station and to the Palleg Road Landfill located adjacent.

The transfer station site will be enclosed within a 1.8m high security fence, with suitable warning notices, where boundaries with the public access areas are anticipated. Elsewhere standard stock proof fencing will be used.

As with the landfill, the entrance will be via a pair of 1.8m high security gates, which will be locked at the end of each working day.

The site perimeter fencing will be inspected during each shift to ensure it has not deteriorated or been breached. In the event of locating a break in the fence, it will be rewired to a satisfactory standard within one working day.

4.2 Traffic Movement

Traffic will enter the site through the security gates and will commence a one-way circulation system. No entry signs will be displayed to traffic attempting to turn right.

Waste deliveries / collections will proceed straight on to the weighbridge to be weighed and recorded. Entry to the upper level for lorries can only be made from lower level. Only waste carrying vehicles will be allowed in the lower level. The waste carrying vehicles leaving the upper level will exit via the lower level.

4.3 Site Notices

The site will display two primary information notices. Details recorded on the notice will be the local authority, the waste disposal contractor, the site licensing regulator (NRW), opening and closing times and telephone numbers. One notice will be displayed immediately adjacent to the gates, so that it can be inspected when the site is closed and the second will be displayed at the disposal point.

4.4 Road Construction

The road is of traditional construction, with compacted hardcore overlain by a base course of dense bituminous macadam and a subsequent impermeable wearing course. The road is laid to a fall over its entire length to shed any surface water.

4.5 Screening and Tree Planting

The site is already partially screened by a mature hedgerow boundary alongside the public highway. However, further planting of dwarf tree species will be made along this boundary, screening the splay area of the site entrance.

The establishment of trees and shrubs will assist in providing visual screening to the site and also act as a windbreak, reducing the potential for windblown litter away from the site.

4.6 Weighbridge

A weighbridge already exists at the site and is currently used by the landfilling operations. The volume of usage is not excessive and the additional use from the transfer station operations will not create any queuing onto Palleg Road.

The weighbridge will be used to record the waste leaving the transfer station. As is the case now the weighbridge will be suitably calibrated against proving loads.

4.7 Lighting

The use of artificial lighting during operational periods will be minimal due to the proposed opening hours. The use of directional high powered lighting halogen floodlights in the key working areas should provide sufficient lighting for the short winter periods when darkness or poor light occurs during the opening hours.

4.8 Water Supply

Mains water will be provided in the office for staff washing facilities. Externally, a hosepipe will be made available for cleaning down hard surfaces. Toilet facilities will be provided for the staff on site. The overflow from the septic tank will be taken down to the holding sump, collecting run-off from the transfer station site.

5 SITE OPERATIONS

5.1 Control of Mud and Debris

Road vehicles will use the access roads and the transfer station itself, and therefore it is anticipated that the generation of mud and debris will be minimal. However, the roads and site itself are graded and should mud fall off the vehicles during disposal or removal of wastes, the resultant suspended solids in the surface water will be directed towards the sealed drainage system. If necessary, in the event of a larger road spillage, a road sweeper will be used to clean the roads and yard surface.

5.2 Leaks and Spillages

The operational measures that will be undertaken to minimise leakages and spillages have been discussed in sections 2 and 3. Essentially, they involve the correct and safe placement of the waste into the correct area of the site. In addition, the removal of the filled containers by the waste carrying vehicles will also be undertaken in a safe and controlled manner as discussed in Section 3.1.5. The undertaking of such measures will also take place on an impermeable pavement which drains to a sealed system in the area where leaks and spillages are most likely to occur i.e. the lower level.

5.2.1 Risk

The risk is that during the operations described above, leaks and spillages may occur. It is considered that such leaks and spillages will be minimal. These risks have been examined in sections 2 and 3.

5.2.2 Management

Where liquid waste spillages have occurred, specifically fuel and oil from vehicles or during disposal at the waste oil tank, absorbent granules will be applied immediately to reduce the spillage area. The resultant sludge will be cleaned and placed in an appropriate container, before being taken to an appropriately licensed landfill.

More substantial fluid spillages in the upper area would lead to closure of the valve diverting surface water out to the surface water ditch alongside the road, and down towards the water treatment plant. The site operators' staff would be responsible for closure of this valve once a significant spillage occurred. Once the area is hosed down and cleaned the valve could be re-opened.

Solid waste spilled from containers will be hand collected and replaced into the appropriate container. Should more significant spillages of solid waste occur then plant from the adjacent Palleg Road Landfill will be brought over to aid in the clean-up operation.

5.2.3 Monitoring

Monitoring of any spillages would be undertaken by inspection of the whole site on a daily basis.

5.3 Fires on Site

It is intended that no materials will be burnt within the confines of the site as part of any waste management operations.

5.3.1 Risk

N/A with closure of BWRC.

5.3.2 Management

The site will benefit from continuous supervision from the site operators staff.

Should any waste ignite, a hose pipe water source from the office would be used to extinguish the fire immediately, if safe to do so. Once extinguished the waste would be transferred to the assigned emergency area where it will remain until cool. It would then be taken to the appropriate licensed facility.

5.3.3 Monitoring

Simple inspection and supervision of the site during normal working hours would comprise monitoring for fire. A daily inspection sheet will be used to record the presence of any fires.

5.4 Waste Acceptance and Control Procedures

The waste accepted at the site is described in Section 2.3. Details as to the necessary procedures to be adopted for non-compliance of the waste type brought to the site are included in section 2.1.1 ii).

When a skip containing waste for off-site recovery or disposal becomes full to capacity, arrangements would be made to remove it to its ultimate disposal point. Prior to contacting the appropriate waste carrier and removal of the filled skip, an examination would be made to ensure that the waste is of the correct type for the proposed disposal facility. If this is satisfactory the site operators' staff would contact the necessary waste carrier to ensure collection of the filled container. An empty replacement container would be sent out at the same time.

Each empty skip or container entering the site will require the driver to check in at the site office and weigh the empty vehicle on the weighbridge. The driver would then be directed to the filled waste container, which would then be removed and replaced with the empty one.

The filled waste container would be weighed on the weighbridge and the driver would declare the destination of the waste. The driver would be handed a disposal docket, which would in turn be handed in at the appropriate discharge point facility (waste transfer note). Other details recorded on the transfer note would be the origin and classification of the waste. All these details would be recorded in a waste record book. Record would also be made of the date, time, vehicle registration, waste type, waste weight and final disposal point for each vehicle leaving the site.

It is intended that the record keeping process will be both manual and computerised.. The weighbridge will not be integrally computerised.

Prior to leaving the transfer station site it would be the responsibility of the driver of the waste carrier to ensure that the load is safe to be transported on a public highway. Sheeting would be required on all open skips.

5.4.1 Risks

The main risks associated with the procedures described above are the importation of non-permitted wastes.

No other major risks with the control procedures adopted are identified.

5.4.2 Management

Management of the introduction of non-compliant waste is detailed in Section 2.1.1 ii) of the working plan.

Non-compliant waste types found in the waste container immediately prior to removal would be removed and placed into the correct one.

5.4.3 Monitoring

As detailed in Section 2.1.1 iii) of the working plan.

5.5 Waste Quantity Measurement Systems

All the waste leaving the site would be weighed at the fully calibrated weighbridge. The waste type and quantity will be measured and recorded both in manual form and offsite on a computerised system.

The weighbridge will be calibrated and serviced on an annual basis and a record of the calibration kept in the site office for inspection. A record will be kept of any other maintenance undertaken on the bridge.

Back up of computerised data will take place at the end of each working week.

5.6 Asbestos Bearing Wastes

No longer accepted after closure of the BWRC.

5.7 Waste Oils

No longer accepted after closure of the BWRC.

5.8 Liquid CFC Bearing Wastes

Liquid CFC bearing wastes could be delivered to the site in the form of fridge's or freezers. The CFC bearing wastes would be stored in a sealed unit.

The appliances would only be stored on site until they were removed for dismantling or disposal on an approved and suitably licensed waste facility.

5.9 Batteries

Batteries brought to site will be stored as detailed in Section 2.1.2. It is anticipated that the volumes of batteries delivered will be small and that only a small storage area will be allocated. All batteries will be stored in a separate designated area.

All batteries will be stored in an upright position, in order to avoid spillage of acid onto the floor. Should any spillages occur, the base of the container would comprise an impermeable concrete floor to prevent contamination. Any significant spillages would initially be treated with lime to neutralise the acid. The solid residue would be removed and placed into the appropriate skip and then the surface would be hosed down into the sealed drainage system.

6 POLLUTION CONTROL, MONITORING AND REPORTING

6.1 Surface Water Quality Monitoring and Reporting

The transfer station yard as described in Section 3.1 will be split into a dirty zone (lower level area) and a clean one (upper level). Any contaminated water will flow into a sealed drainage system, and eventually into the surface water treatment system. The clean surface water would run into the surface water ditch located along side Palleg Road.

The surface water monitoring would comprise visual and olfactory (smell) observations at weekly intervals. More rigorous testing would be undertaken if a problem was apparent.

6.2 Monitoring and Recording of Meteorological Conditions

The monitoring and recording of meteorological conditions will comprise a description in the daily inspection sheet and diary.

No other meteorological monitoring is intended.

7 AMENITY CONTROL AND MONITORING

7.1 Control of Dusts, Fibres and Particulates

During extended dry periods, or when handling and processing dry waste, dust may be generated at the transfer station site. Specifically it is the deposition of builder's waste and shredding that is likely to generate the greatest amount of dust.

7.1.1 Risk

A risk exists that dust may be generated at the site resulting in inhalation by visiting members of the public and site operatives. In addition, a small risk exists that the dust may result in deposition of residues on nearby trees and shrubs over a longer time scale.

7.1.2 Management

Any dust generated at the site will be managed by dousing with water from the mains supply at the office. The access and site roads will be kept clean at all times and if necessary, a road-sweeper will be used to remove any larger volumes of dust evident in areas not accessible to dousing.

7.1.3 Monitoring

Monitoring of the generation of dust will be done by simple inspection at the start of each working day.

7.2 Control of Odours

Odours are generated by the slow decomposition of biodegradable waste and odorous loads brought to site. At the Palleg Road transfer station there is a low risk of significant quantities of odorous waste being accepted as all wastes will be visually checked and most wastes are commercial. Procedures are in place to deal with an odorous loads.

7.2.1 Risks

The risks associated with decomposition of such wastes are that odours affect nearby population sources and to a degree the public who visit the transfer station itself.

7.2.2 Management

The risk of the generation of odour will be minimised by the removal of any biodegradable waste within 72 hours.

7.2.3 Monitoring

The daily site inspection will be used to identify any acute or chronic odour problems that may occur. The results of the monitoring will be recorded in the daily inspection sheet.

7.3 Control and Monitoring of Noise

The noise caused by the transfer station will primarily come from the handling and treatment of waste and lorry/ plant movements.

7.3.1 Risks

A very minor risk exists that nearby residents will be aggravated by the noise. The nearest occupied residential property is Pentre-ty-Gwys Farm being 340m from the site.

7.3.2 Management

The transfer station site is located immediately adjacent to the public highway and to the Palleg Road Landfill and increased problems with noise are not anticipated. A tree screen exists for the majority of the boundary along the public highway, which will minimise noises emitting from the site in this direction. In addition, the raised restored section of the Palleg Road Landfill will also aid in the reduction of noise emanating from the site.

Registered waste carrying vehicles using the site to deliver and remove filled containers will have had to comply with highway roadworthiness standards and would therefore be already fitted with the necessary baffles and silencing equipment.

7.3.3 Monitoring

Acoustic monitoring is not intended unless specific complaints are made. Any waste carrier vehicles entering the site without the necessary silencing equipment causing a noise will be recorded and the contractor concerned informed by the site operator's staff of the problem. Any extreme noise generated on the site would be recorded on the daily inspection sheet.

7.4 Control of Pests

Pests comprising insects and rodents could be attracted to the biodegradable wastes stored at the site.

7.4.1 Risks

The risks associated with the presence of the pests described are the transfer of disease to humans.

7.4.2 Management

Should any vermin or insect infestation occur then the local pest control officer would be contacted as soon as possible. The officer would be invited to visit the site occasionally to look for signs of infestation. If necessary, on the advice of the officer, additional appropriate measures to the ones described would be undertaken to eliminate the presence of such pests.

7.4.3 Monitoring

The monitoring of the presence of rodent or insect infestation would be undertaken by simple site inspection on a daily basis. In addition, the local pest control officer would also be asked to visit the site periodically to monitor the site.

Any pests noted on the site would be recorded on the daily inspection sheet.

7.5 Control of Birds and Other Scavengers

The presence of birds and other scavengers may occur due to the presence of biodegradable waste being a potential food source.

7.5.1 Risks

The risks from large volumes of birds and other scavengers being on site are considered to be small, as waste materials will not lie exposed on the surface for any lengthy period of time.

7.5.2 Management

Biodegradable waste is not now generally accepted at the site apart from small incidental amounts contained in General waste. Waste is removed to landfill immediately after shredding.

The majority of terrestrial scavengers would be excluded from the site via the perimeter security and stock proof fencing.

7.5.3 Monitoring

Visual inspection for the presence of any birds and scavengers would be made on a daily basis.

Any birds noted on this site would be recorded on the daily inspection sheet.

7.6 Control of Litter

7.6.1 Risks

The main risk from litter deposited within the site is its ability to be blown off site and onto other areas including the public highways.

7.6.2 Management

Good working practices at the disposal point will be the key to controlling the litter. The staff would be responsible for redistributing wastes (liable to create windblown litter) as necessary.

When each open skip is full it will be netted to prevent windblown litter escaping during transportation, though once on the highway the control of litter would be the responsibility of the driver.

Within the site the presence of a tree line alongside the public highway and the raised, restored Palleg Landfill will assist greatly by forming wind breaks.

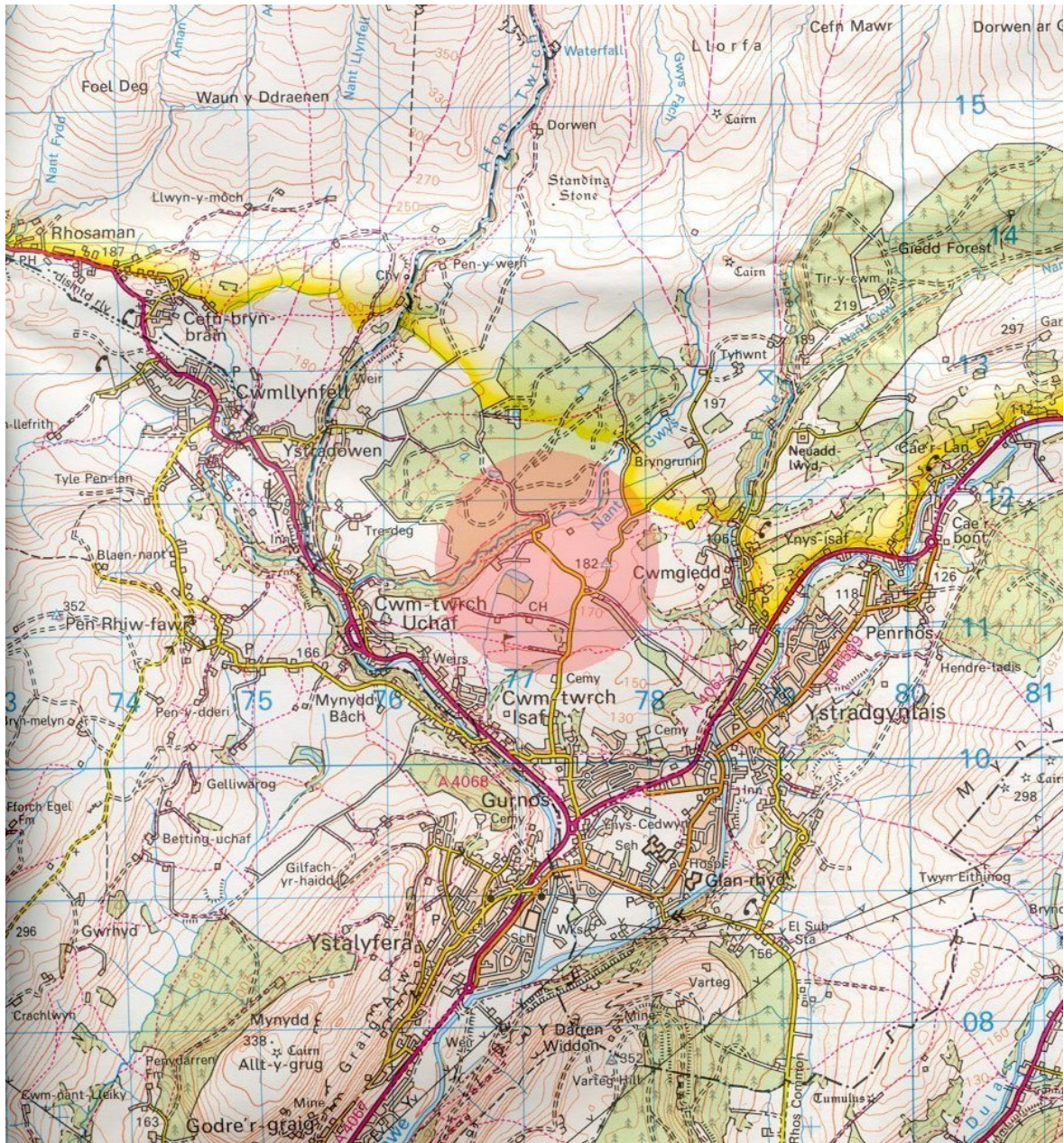
Any litter dropped during the disposal or collection operations will be picked up and placed into the correct container.

7.6.3 Monitoring

Monitoring of litter on site will be undertaken during the daily inspection. If litter is identified, hand collection of it would be made and deposition into the correct waste container.

Any litter noted on the site would be recorded on the daily inspection sheet.

Figure 1 Site Location Plan



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Figure 2 Detailed Site Plan with Permit Boundary

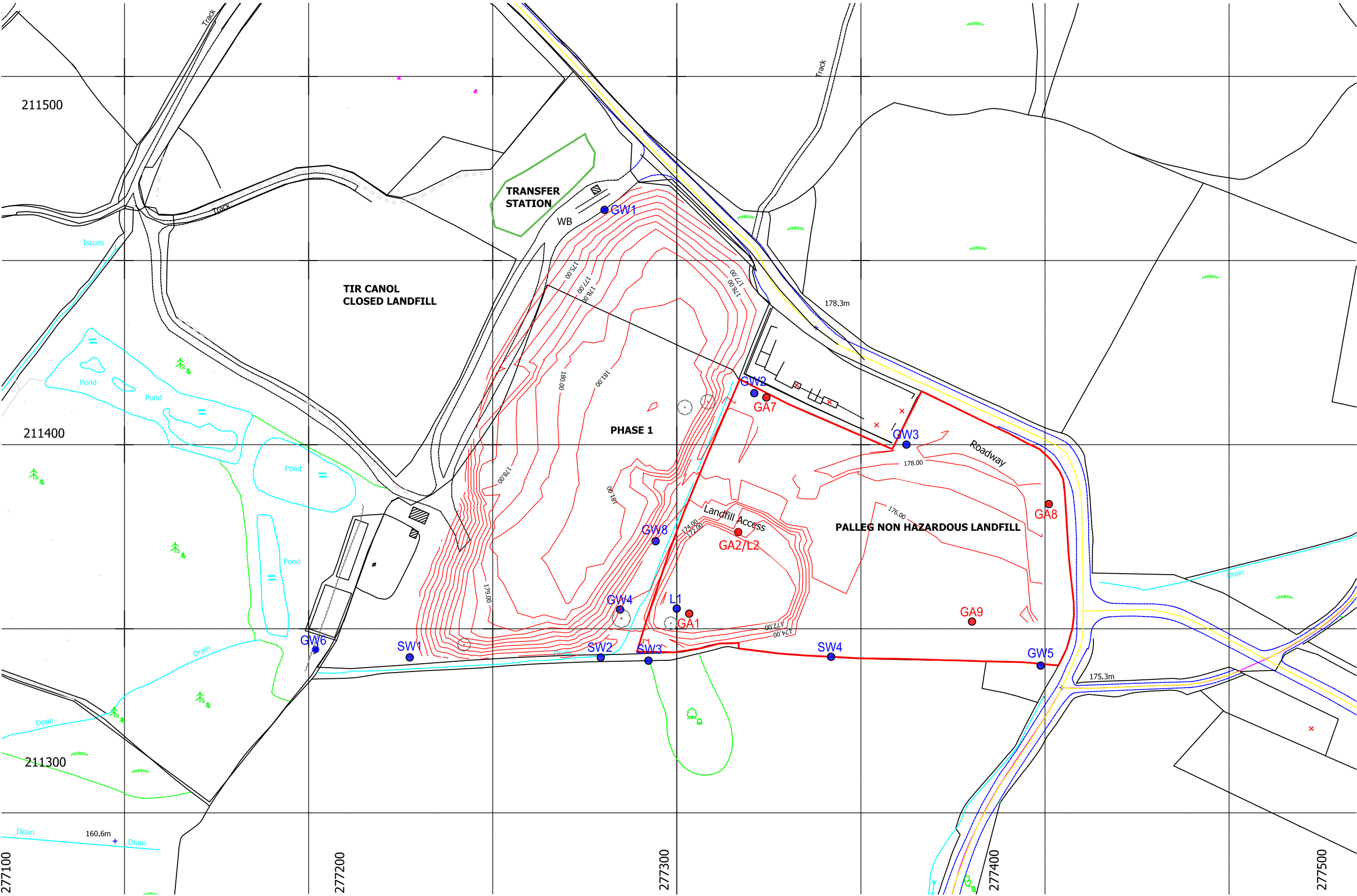
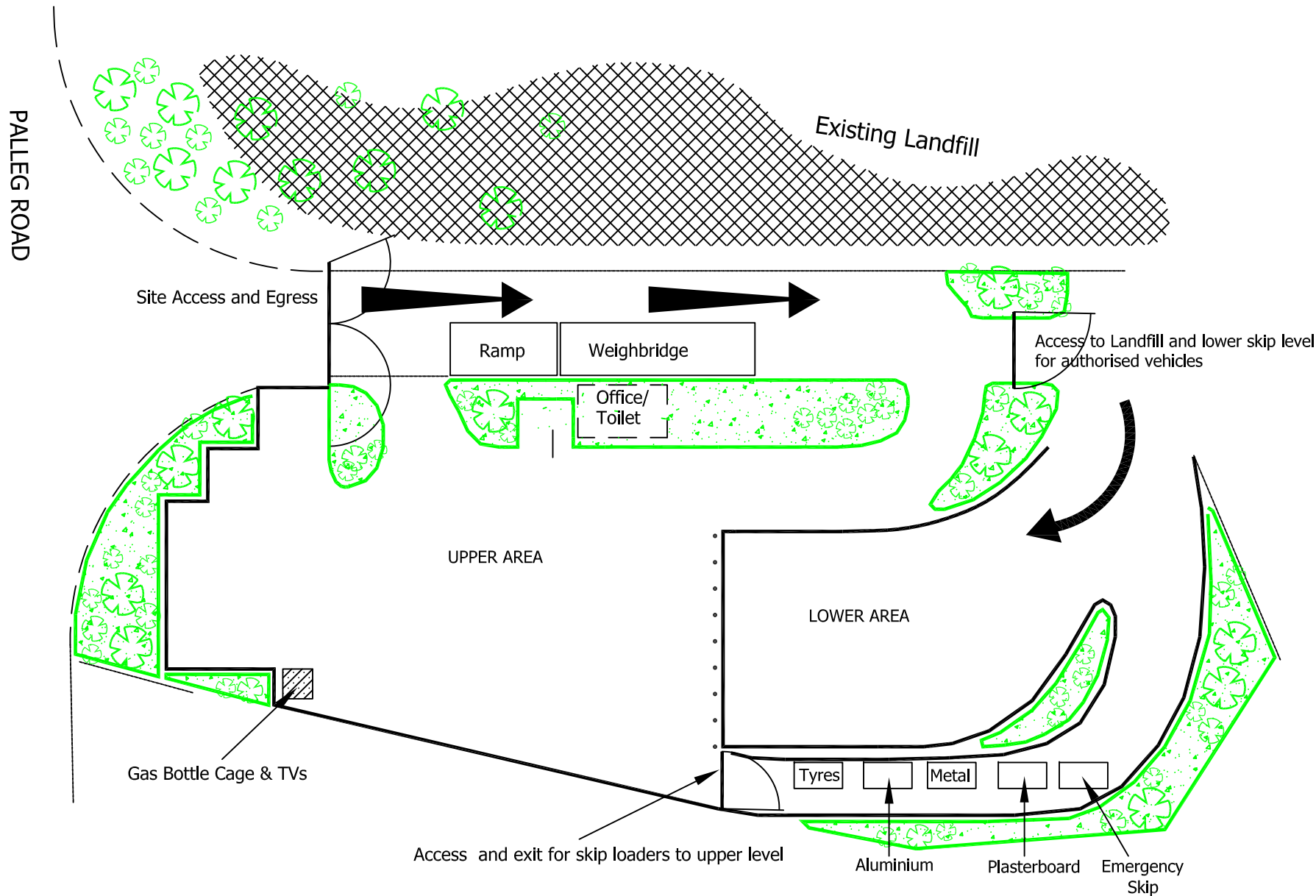


Figure 3 Site Layout



JLA DISPOSAL LTD

**WASTE TRANSFER
STATION**

**ENVIRONMENTAL RISK
ASSESSMENT**

Report Number 1778r1v1d0718

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1 INTRODUCTION

1.1 Background

JLA Disposal Ltd operates a waste transfer station. The facility is used for the sorting and treatment of waste prior to its disposal in the adjacent Palleg Non Hazardous Landfill or off-site recovery. This report evaluates the potential environmental risks associated with the operation.

2 OVERVIEW OF ACTIVITIES

2.1 Type of Waste

The list of wastes that may be accepted at the site is exhaustive and fully detailed in the Permit. During day to day operations however, the bulk of the waste accepted at the site is non-hazardous mixed commercial waste typically comprising different types of plastic, wood and metal.

1.2 Waste Treatment

The operation benefits from an impermeable sealed yard where the waste is accepted and inspected. The waste typically arrives on commercial vehicles such as small flat beds and RORO skips.

Once accepted, the waste is rapidly sorted and, where applicable, shredded. In combination, these processes enable the separation of tyres, gas cylinders, wood, scrap metal and certain plastics (such as UPVC) for off-site recovery and a low density light fraction waste for disposals in the adjacent Palleg Non Hazardous Landfill.

The success of the site and environmental protection requires rapid processing and, during typical operations the waste reception bay is emptied of accepted waste. Materials separated for recovery are in designated skips and the fraction for disposal has been landfilled.

2.4 Site Infrastructure and Layout

The site is split into two levels with all waste acceptance and treatment undertaken in the lower level. This area is provided with a sealed system comprising impermeable concrete and environmental protection measures including an oil / water interceptor, sump with penstock and polishing reed beds.

2.6 Technical Ability

The TCM is Mr John Adams who holds relevant WAMITAB certification.

2.7 Management Systems

The site benefits from a documented EMS.

3 ENVIRONMENTAL SETTING

3.1 Environmental Setting

The transfer station is adjacent to land to the east and west that has been historically used as landfill. Parts of the transfer station overlie the landfill to the west. Beyond the historic landfill to the east is a former coal processing plant and also the active Palleg Non Hazardous Landfill. To the North is Palleg Road that provides access to the site. The southern boundary to the site is the western closed landfill.

The site occupies high ground between the Tawe Valley and the Gwys valley. The watershed between the valleys is situated some 300m to the east and consequently the site does not lie near any significant watercourses. The terrain in the immediate vicinity slopes gently south to a shallow valley occupied by an unnamed tributary of Afon Twrch. Land on the opposite side of the shallow valley rises only 3m over 150m before dropping sharply into the steep valley of Nant Gwys.

NRW undertakes routine monitoring of several water quality indicators downstream of the site in Nant Gwys close to its confluence with Afon Twrch. Both chemical and biological indicators are used to classify the quality of the river water and it is understood that the water course is currently classified as Grade B.

3.2 Geology

The site is underlain by a thick sequence of Glacial Till which in turn is underlain by mudstones and thin coal seams belonging to the Coal Measures. Sandstone has not been found beneath the site, and available geological information suggests it is not likely to be of significance for some significant depth.

3.3 Groundwater

Groundwater beneath the site occurs principally in the Coal Measures bedrock, which is classified as a minor aquifer. Groundwater does not lie within a source protection zone. NRW recognizes that the site is not in a particularly sensitive location from a groundwater perspective.

3.4 Surface Water

The only surface water feature of note within immediate vicinity of the site is a small unnamed stream that flows northeast to southwest some 300m south of the site. The stream flows westward towards Palleg Golf Club and ultimately drains to the Afon Twrch.

3.5 Meteorology

The prevailing weather direction is from the southwest and the hills, which the site is situated on, are the first areas of high ground the weather systems meet as they pass up the Swansea Valley. Accordingly, the site experiences high rainfall, typically more than 1220mm of rainfall per annum. Evapo-transpiration reduces the effective rainfall to an annual average of 940mm per annum. Wind direction is predominantly dominated by southwesterly and westerly weather systems.

3.6 Protected Sites

The boundary of Brecon Beacons National Park is approximately 800m north. There are no other protected sites within 1km.

3.7 Human Receptors

The site is located on high ground away from residential development. The closest dwelling is a farm approximately 340m north.

4 METHODOLOGY

In the following chapters the influence that the proposed activities could have on the environment is evaluated.

4.1 Approach

The approach adopted to evaluate the impacts of the proposed activities is based on identifying potential exposure pathways. This approach is semi-quantitative and based on the approach advocated by NRW in generic risk assessments that accompany Standard Permit applications. The conceptual site model, presented as a matrix, identifies plausible pollution linkages (source-pathway-receptor relationships) and potential impacts to the local environment which could arise as a result of the proposed activities.

This combined approach enables:

- screening out those linkages that are insignificant and don't need detailed assessment
- assessment of potentially significant risks in more detail if needed

The approach has three stages:

- identify risks from the proposed activities
- assess the risks and check that they are acceptable
- justify appropriate measures to control identified risks, if necessary

In the assessment the following aspects have been considered:

- Odour
- Noise and vibration
- Accidents
- Fugitive emissions to air and water
- Controlled releases to air
- Controlled discharges to surface waters
- Controlled discharges to ground or groundwater

4.1.1 Presentation of Residual Impacts

In view of the large amount of data to be handled, the risk assessment is presented in a matrix where the potential impact ratings associated with the proposed activities are presented in a clear, transparent and consistent manner.

5 IMPACT ASSESSMENT

5.1 Site Context

The scope of the Permit sought, the location of the site and the control measures that will be implemented will limit the potential risks posed to the environment. These operational control measures and aspects are listed below:

- Permitted activities - The storage and treatment of waste (D15, R13, D14, D9, D13, R4) and treatment comprising only treatment consisting of physical sorting or separation of waste into different components, physical mixing or bulking of solid wastes of the same or different types, shredding, where there are no resulting changes in the chemical composition of the wastes or its different components. There shall be no mixing or dilution of different types of wastes in liquids or sludges.
- Permitted waste types - Non-hazardous and hazardous (asbestos only) Household, Commercial and Industrial Waste. See Permit for full list and EWC codes.
- Quantity of waste accepted at the facility: less than 75,000 tonnes per annum, the quantity of tyres stored at the facility shall not be more than 50 tonnes.
- The quantity of asbestos stored at the facility shall not be more than 5 tonnes.
- Asbestos waste shall be double bagged and stored within secure lockable containers .
- All waste shall be stored and treated on an impermeable surface with sealed drainage system, except for specified low-risk waste which may be stored and treated on hard standing.
- The site is not in an Air Quality Management Area (AQMA) designated for particulate matter in the form of PM10.
- 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.

5.2 Evaluation of Impacts

The output of the assessment is summarised in the matrices presented below:

Table 5-1 Summary of Environmental Risk Assessment

Data and information					Judgement			Action	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What 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	Airborne asbestos fibres	Respiratory illness i.e. lung cancer and mesothelioma	Air transport then inhalation.	Low	High	Medium	Potential for exposure is low because of separate health and safety controls to protect employees	All asbestos double bagged in sealed container.	Low
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	Apart from asbestos, 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).	Site is in a remote location with few environmental or human receptors in close proximity. Water will be used as dust suppressant as required. Processing will be temporarily stopped if control measures are not effective.	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	Low	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	Medium	Medium	Medium	Local residents often sensitive to litter.	As above. Litter picking will be routinely undertaken,	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. Wheel wash to be available. Mud on roads cleared is required. Palleg road is not a through road.	Low

Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Medium	Medium	Medium	Local residents often sensitive to odour.	Site is in a remote location with few environmental or human receptors in close proximity. Processing will be temporarily stopped if control measures are not effective.	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	As above	Low
Local human population	Scavenging animals and scavenging birds	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 and birds. Wastes may become nesting / breeding sites.	Site operates on basis of rapid processing and disposal . recovery of waste. Little biodegradable waste accepted.	Low
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	Low
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	Site is not at risk of flooding as it is on head of catchment. No risk considered plausible.		
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	Apart from asbestos, permitted waste types are non-hazardous therefore only a medium magnitude risk is estimated.	Activities shall be managed and operated in accordance with a management system which includes site security measures to prevent unauthorised access.	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, 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, apart from asbestos, are non-hazardous therefore only a medium magnitude risk is estimated.	As above. Site operates on basis of rapid processing and disposal . recovery of waste. Surface water drainage can be controlled.	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 firefighters. Pollution of water or land.	As above.	Medium	Medium	Medium	Risk of accidental combustion of waste is moderate.	Site is in a remote location with few environmental or human receptors in close proximity. Fire procedures in place.	Low
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 low potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain.	All liquids shall be provided with secondary containment. Storage & treatment to be managed on an impermeable surface with controlled sealed drainage with only specified low risk wastes stored on hard standing.	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	Medium	Low	Low	Apart from asbestos, waste types are non-hazardous so harm is likely to be temporary and reversible.	As above	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.	Medium	Medium	Medium	There is no surface water abstraction in close proximity to site Risk not considered plausible.		
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 potential for contaminated rainwater run-off or leachate from permitted waste types.	All liquids shall be provided with secondary containment. Storage & treatment to be managed on an impermeable surface with controlled sealed drainage with only specified low risk wastes stored on hard standing.	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	There is no recreational use of surface water in close proximity to site Risk not considered plausible.		
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Medium	Medium	Medium	Waste operations may cause harm to and deterioration of nature conservation sites.	Brecon Beacons National Park boundary 800m north. No SSSI within 1km.	Low

5.3 Positive Impacts

This assessment has focussed on identifying the potential negative environmental risks associated with the transfer station so that these can be managed and mitigated, as far as practicable, within the site management systems. In this context, the positive impacts associated with the development are not highlighted. Some of the positive impacts will include:

- Recovery of waste.
- Providing rural industry with a waste management facility.
- Reduction in amount of waste landfilled.
- Full time employment and associated personal and community benefits.

5.4 Procedures and Pollution Controls

The site will be managed in accordance with an EMS that is aimed at reducing risks to the environment.

6 SUMMARY AND CONCLUSIONS

The assessment demonstrates that the operation of the waste management facility will not lead to any significant negative impacts to the environment or humans. The scheme does, however, provide many positive impacts.

This risk assessment will be need to be updated when necessary and directly linked to the Environmental Management System.