



Environmental Risk Assessment

**Cwrtgwenddwr Wood Recycling
Facility**

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| Document Title | Environmental Risk Assessment |
| Revision | 2.0 |
| Date | 13/12/2021 |
| Document Reference | John Jones – ERA 13-12-21 |
| Prepared For | John Jones Civil Engineering & Groundworks Ltd |
| Authored By | MTS Environmental Ltd |

Quality Control

| Revision No. | Date Revised | Description of changes | Authored By | Sign Off | Approved By | Sign Off |
|--------------|--------------|---|---------------|---|--------------|---|
| 1.0 | 06/21 | Original Draft | Kasia Haywood |  | Luke Bridges |  |
| 2.0 | 13/12/21 | Assessment of risks affecting the River Wye | Kasia Haywood |  | Luke Bridges |  |

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1. Introduction

John Jones Civil Engineering & Groundworks Ltd is applying for a Tier 2 Environmental Permit for a standard site-based facility (application reference: TBC), for its site at Cwrtgwenddw'r Wood, A470, Erwood, Llanfaredd, Powys, Wales, LD2 3YN. The purpose of this application is to set up a recycling facility for processing inert wastes under the standard rules permit SR2010 No12 – Treatment of waste to produce soil, soil substitutes and aggregate. The main activities on site will include crushing and screening soils and aggregates sourced from the construction and highways industries.

This Environmental Risk Assessment (ERA) is limited to a qualitative assessment of the potential risks to the environment and human health specifically related to the activities undertaken at the John Jones Cwrtgwenddw'r recycling site. This report will identify any significant risks and detail the measures that John Jones Engineering and Groundworks Ltd will adopt to appropriately manage any risk of pollution.

2. Environmental Risk Assessment

2.1. Methodology

This report has been prepared following the risk assessment guidance provided by National Resources Wales for an SR2010 No12 activity. It specifically relates to the potential risks associated with odour; noise and vibration; fugitive emissions and accidents and incidents.

This risk assessment addresses the above risks and is based on the following methodology:

- Identification of potential risks
- Identification of all potential receptors to these risks
- An assessment of each risk type.

The Environmental Risk Assessment (Appendix A) assesses the risks to the environment and human health from activities carried out at the John Jones site and identifies the pollutant linkage i.e. source – pathway – receptor for each risk type.

2.2. Potential Hazards

The potential hazards resulting from the activities carried out at the John Jones Cwrtgwenddw'r site have been considered, as provided in Appendix A, and are summarised below:

- Odour:
 - Waste materials
- Noise and vibration:
 - Engine noise from vehicles
 - Use of reverse vehicle warnings
 - Use of plant and machinery
- Fugitive emissions:
 - Particulate matter i.e. dust
 - Scavenging birds, pests, and vermin
 - Mud and litter

- Accidents:
 - Fire
 - Leaks and spillages
 - Flooding
 - Unauthorised access

2.3. Pathways

The pathways identified for each risk type are shown in Table 1:

Table 1: Potential Pathways

| Risk Type | Pathway |
|---------------------|-----------------------|
| Odour | Air |
| Noise and vibration | Air |
| Fugitive emissions | Air |
| Accidents | Air |
| | Surface water run-off |
| | Infiltration |
| | Percolation |

2.4. Receptors

Receptors within 1km of the application site have been identified and are shown in Table 2 below and in the Sensitive Receptor Plan (Appendix B). The main pathway for the identified sources is the air and as such, atmospheric conditions can affect dispersion rates and the potential risk. Therefore, the location of each receptor in relation to the site may influence the potential impact of the risk, as summarised in Table 2.

Table 2: Location of potential receptors in relation to waste operations

| Receptor | Distance from site (m) | Direction |
|--|------------------------|-------------------|
| Residential | | |
| Sheep Wash | 380m | South East |
| Cwrt-Gwenddwr | 100m | North |
| | | East |
| Properties on A470 | 500m | North |
| Tyrcelyn Halt | 520m | South East |
| Upper Pentwyn | 445m | West |
| Lower Pentwyn | 350m | North West |
| Erw'rhenallt | 725m | South West |
| Woodland and Waterways | | |
| River Wye (Special Area of Conservation and Site of Special Scientific Interest) | 150m | East |
| Cwm Dyfnant | 340m | South |
| Broadleaved woodland | 0-1000m | All directions |
| Sensitive Land Uses | | |

| | | |
|-----------------------------------|------|------------|
| St Mauritius Church | 800m | North |
| Chapel Farm | 600m | North East |
| Bedw Farm | 765m | West |
| Industrial/Commercial | | |
| Kite Hill Yurts | 850m | West |
| Public Rights of Way | | |
| Public Bridleway (off the A470) | 250m | North |
| Public Footpath | 470m | West |
| Public Footpath (off the B4567) | 420m | East |
| Public Bridleway | 800m | East |
| Infrastructure/utilities | | |
| A470 | 50m | East |
| B4567 | 375m | East |
| Species | | |
| Important Plant Areas (Plantlife) | 150m | East |

2.4. Risk Assessment

The Environmental Risk Assessment (Appendix A) looks at each specific hazard identified and assesses the likelihood of those hazards impacting on nearby receptors. This is achieved by fulfilling the following objectives:

- Identify the location and nature of each hazard
- Identify the specific receptors potentially at risk and assess the sensitivity of each receptor
- Provide an assessment of the risk posed to each sensitive receptor
- Identify management and monitoring techniques to remove or mitigate the risk
- Provide recommendations for more detailed assessments where necessary.

3. Summary

The Environmental Risk Assessment indicates that if the appropriate outlined management techniques are implemented at the site to protect nearby sensitive receptors, the proposed activities as part of the permit application will have no significant impacts in terms of odour, noise and fugitive emissions, and the likelihood of accidents is minimal.

Appendix A – Environmental Risk Assessment

Table A1: Odour Risk Assessment and Management Plan

| What is the risk? | | | Managing the risk | Assessing the risk | | |
|---------------------|---|-------------------------------|--|---|--------------------------------|---------------------------|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | What is the overall risk? |
| Odorous Waste Types | Local population in residential dwellings and sensitive land uses listed in Table 2 Public footpaths Site Staff | Air transport then inhalation | Permitted waste types stored onsite are not putrescible and so have a low odour potential. There will be strict waste acceptance procedures in place to minimise the risk of non-compliant wastes being accepted. Details of the waste acceptance procedures are provided in the Environmental Management System (EMS). All site operatives will be vigilant regarding identifying non-compliant wastes and any non-conformances or odour issues will be reported to the Site Manager. | Very unlikely as the waste types accepted on site do not give off odour unless heated and the material will be stored at ambient temperature. Work will be within the effective operational capacity of the site to minimise prevent build-up of waste. | Odour annoyance and complaints | Low |

Table A2: Noise and Vibration Risk Assessment and Management Plan

| What is the risk? | | | Managing the risk | Assessing the risk | | |
|--|---|-------------------|---|-------------------------------------|--|---------------------------|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | What is the overall risk? |
| Noise and vibrations from loading and unloading of waste | Local population in residential dwellings and sensitive land uses listed in Table 2 Public footpaths Woodland | Air and vibration | <p>All noise generating activities will be undertaken between the hours of 07:00 to 18:00 Monday to Friday and occasionally 07:00 to 13:00 on Saturdays, except for emergency repairs. No operations would take place on Sundays or recognised Public Holidays.</p> <p>All plant and machinery will have effective silencers where practicable and will be maintained in accordance with the manufacturer's requirements to minimise the risk of mechanical failure which could result in increased noise emissions.</p> <p>The loading/unloading of wastes will be undertaken in a controlled manner to keep noise/vibration to a minimum. Vehicles will be directed by site operatives to minimise the drop height when depositing loads at the site.</p> <p>All noise and vibration generating activity will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.</p> <p>The site is enclosed within cliff walls, which will act as a noise barrier and prevent noise from travelling off site. There is also established vegetation and trees surrounding the site.</p> <p>Noise and vibration will be managed in accordance with the Noise and Vibration Management Plan prepared for the site.</p> | Intermittent noise disturbance | Noise annoyance and complaints | Low |
| Vehicle movements on site | Local population in residential dwellings and sensitive land uses | Air | <p>Loads will only be delivered to the site during working hours (07:00 to 18:00 Monday to Friday and occasionally 07:00 to 13:00 on Saturdays).</p> <p>The on-site haul road operates in a one-way system to reduce the need for reversing and traces the most efficient path across the site.</p> | Intermittent during operating hours | Intermittent noise and vibration disturbance | Low |

| | | | | | | |
|-----------------------------|--|-----|--|--------------------------------------|---|-----|
| | <p>listed in Table 2</p> <p>Public footpaths</p> <p>Woodland</p> | | <p>The delivery of waste will take place in a controlled manner to keep noise to a minimum.</p> <p>All plant and machinery will have effective silencers where practicable and will be maintained in accordance with the manufacturer's requirements to minimise the risk of mechanical failure which could result in increased noise emissions.</p> <p>An anti-idling policy ensures that all equipment and vehicles when not in regular use shall be switched off. The Site Manager will be responsible for ensuring the above measures are implemented.</p> <p>All noise generated by vehicle movements will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.</p> <p>Noise and vibration will be managed in accordance with the Noise and Vibration Management Plan prepared for the site.</p> | | | |
| Use of plant and machinery. | <p>Local population in residential dwellings and sensitive land uses listed in Table 2</p> <p>Public footpaths</p> <p>Woodland</p> | Air | <p>All noise generating activities will take place during working hours (07:00 to 18:00 Monday to Friday and occasionally 07:00 to 13:00 on Saturdays), except for emergency repairs.</p> <p>All plant and machinery will have effective silencers where practicable and will be maintained in accordance with the manufacturer's requirements to minimise the risk of mechanical failure which could result in increased noise emissions.</p> <p>All equipment and vehicles, when not in regular use, shall be switched off. The Site Manager will be responsible for ensuring the above measures are implemented.</p> <p>All noise generating activity will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.</p> <p>Noise and vibration will be managed in accordance with the Noise and Vibration Management Plan prepared for the site.</p> | Intermittent during operating hours. | Intermittent noise and vibration disturbance. | Low |

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|--|--|------------|--|---|--|------------|
| <p>Noise from reversing vehicle warnings.</p> | <p>Local population in residential dwellings and sensitive land uses listed in Table 2</p> <p>Public footpaths</p> <p>Woodland</p> | <p>Air</p> | <p>All noise generating activities will take place during working hours (07:00 to 18:00 Monday to Friday and occasionally 07:00 to 13:00 on Saturdays) except for emergency repairs.</p> <p>The on-site haul road operates in a one-way system to reduce the need for reversing and trace the most efficient path across the site.</p> <p>All noise and vibration generating activity will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.</p> <p>Vehicles will be fitted with push alarms in replace of loud reversing beeping alarms.</p> | <p>Intermittent during operating hours.</p> | <p>Intermittent noise disturbance.</p> | <p>Low</p> |
| <p>Noise from processing of waste materials (crushing and screening)</p> | <p>Local population in residential dwellings and sensitive land uses listed in Table 2</p> <p>Public footpaths</p> <p>Woodland</p> | <p>Air</p> | <p>All noise generating activities will take place during working hours (07:00 to 18:00 Monday to Friday and occasionally 07:00 to 13:00 on Saturdays) except for emergency repairs.</p> <p>Screening activities will not generate levels of noise above that originating from the surrounding roads, commercial and industrial area.</p> <p>Drop heights will be limited when moving materials.</p> <p>Plant and machinery will be orientated to ensure noise travels into the centre of the site instead of to the outer perimeter to reduce noise spreading off site. The crusher and screener will be orientated with the quietest side facing towards the residential properties.</p> <p>All plant and equipment will be switched off when not in regular use. Crushing and screening will be done on a campaign basis, only once sufficient material has accumulated to avoid on-off use.</p> <p>All plant and machinery will have effective silencers where practicable and be maintained in accordance with the manufacturer's requirements to minimise the generation of noise.</p> <p>The site is enclosed within cliff walls, which will act as a noise barrier and prevent</p> | <p>Intermittent during operating hours</p> | <p>Intermittent noise disturbance</p> | <p>Low</p> |

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| | | <p>noise from travelling off site. There is also established vegetation and trees surrounding the site.</p> <p>All noise and vibration generating activity will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.</p> <p>Noise and vibration will be managed in accordance with the Noise and Vibration Management Plan prepared for the site.</p> <p>Crushing will be carried out on a campaign basis during a limited number of weeks per year.</p> | | | |
|--|--|---|--|--|--|

Table A3: Fugitive emissions risk assessment and management plan

| What is the risk? | | | Managing the risk | Assessing the risk | | |
|---------------------------------------|---|-------------------------------|---|-----------------------------------|---|---------------------------|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | What is the overall risk? |
| To Air | | | | | | |
| Dust emissions from vehicle movements | Local population in residential dwellings and sensitive land uses listed in Table 2. Woodlands and waterways Site Staff Users of roads listed in Table 2 | Air transport then deposition | <p>Wastes being delivered to the site will be covered or sheeted to prevent the generation of dust while the waste is in transit.</p> <p>The purpose of the site is to produce aggregates and the material stored on site will mainly be aggregates which have had the fines removed thus reducing their potential as a dust source. Careful observation of stockpiles containing materials that still contain fines will be carried out.</p> <p>Vehicle speeds will be limited onsite and the access road to 5mph to prevent re-suspension and movement of dust.</p> <p>All equipment and vehicles when not in regular use shall be switched off to minimise the risk of dust emissions that may arise from idling.</p> <p>The implementation of a dust suppression system including the use of a mobile bowser and hose pipe system used to dampen down any dusty waste on site and the maintenance of the site surface.</p> <p>The site is enclosed by cliff walls and trees to screen any dust emitted during site activities and act as a dust defence.</p> <p>The site benefits from a mobile bowser which can supply water for damping down and dust suppression. This will be filled by tinkering water on to site.</p> <p>The Site Manager undertakes a daily visual assessment of dust levels and all site operatives will be vigilant and report any</p> | Unlikely due to measures in place | Local nuisance i.e. dust on cars, clothing, and vegetation. Nutrient enrichment. | Low |

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|---|---|-------------------------------|---|--|---|-----|
| | | | problems to the Site Manager. | | | |
| Dust emissions generated during unloading of waste from HGVs. | Local population in residential dwellings and sensitive land uses listed in Table 2. Woodlands and waterways Site Staff Users of roads listed in Table 2 | Air transport then deposition | <p>A mobile bowser and hose pipe system will be used to dampen the site surface and storage bays if necessary.</p> <p>The loading/unloading of wastes will be undertaken in a controlled manner to keep dust emissions to a minimum.</p> <p>Drop heights will be minimised to reduce the generation of dust whilst the waste is being handled.</p> <p>The surrounding cliff walls will act as a screen for dust so no dust escapes from the site boundary.</p> <p>Established vegetation surrounds the site which acts as a dust barrier and screens any dust from site operations.</p> <p>The mobile bowser can access all surfaces on site to be used for damping down and dust suppression.</p> <p>The Site Manager will undertake a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager.</p> <p>Operations will temporarily cease when winds are likely to generate dust emissions from wastes and materials.</p> | Dust could potentially reach nearby properties when a strong wind blows in their direction. Management actions should prevent this happening | Local nuisance i.e. dust on cars, clothing, and vegetation. Nutrient enrichment. | Low |
| Dust from haul roads | Local population in residential dwellings and sensitive land uses listed in Table 2. Woodlands and waterways | Air transport then deposition | <p>The use of modern plant and regular maintenance shall be practiced to reduce emissions.</p> <p>The implementation of dust suppression systems including the use of a mobile bowser in high activity waste processing areas, the hosing of vehicles where necessary and regular maintenance of haul roads with a jet wash.</p> | Unlikely due to measures in place | Local nuisance i.e. dust on cars, clothing, and vegetation. | Low |

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|---|--|--------------------------------------|---|--|--|------------|
| | <p>Site Staff</p> <p>Users of roads listed in Table 2</p> | | <p>The site will benefit from a jet wash hose pipe which is used by HGV's before they leave the site. This will minimise the risk of dust emissions on the haul road.</p> <p>The cliff walls surrounding the site will act as a screen for dust so no dust escapes from the site boundary.</p> <p>The site benefits from a mobile bowser which can supply water for damping down and dust suppression.</p> <p>Dust will be managed in accordance with the Dust Management Plan prepared for the site.</p> <p>The Site Manager undertakes a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager.</p> | | | |
| <p>Dust emissions from the processing of waste materials (crushing and screening)</p> | <p>Local population in residential dwellings and sensitive land uses listed in Table 2.</p> <p>Woodlands and waterways</p> <p>Site Staff</p> <p>Users of roads listed in Table 2</p> | <p>Air transport than deposition</p> | <p>The implementation of a dust suppression system including the use of a mobile bowser and hose pipe system used to dampen down any dusty waste on site and the maintenance of the site surface.</p> <p>Plant and machinery will be orientated to ensure dust travels into the centre of the site instead of to the outer perimeter to reduce dust spreading off site.</p> <p>The cliff walls around the site and the surrounding vegetation will act as a screen for dust so no dust escapes from the site boundary.</p> <p>All plant and equipment will be switched off when not in regular use.</p> <p>Crushing activities will only operate on a campaign basis during a limited number of weeks per year.</p> <p>The site benefits from a mobile bowser which can supply water for damping down and dust suppression.</p> | <p>Unlikely due to measures in place</p> | <p>Local nuisance i.e. dust on cars, clothing, and vegetation.</p> <p>Nutrient enrichment.</p> | <p>Low</p> |

| | | | | | | |
|--|---|-------------------------------|--|---|---|-----|
| | | | The Site Manager undertakes a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager | | | |
| Release of particulate matter (dusts), vapours and polluting gases | Local population in residential dwellings and sensitive land uses listed in Table 2. Woodlands and waterways Site Staff Users of roads listed in Table 2 | Air transport then inhalation | Permitted waste types do not include dusts, powders or loose fibres and waste is not typically dusty unless it is stored during prolonged dry periods when damping down is carried out where required. Hazardous wastes are not permitted on site, only inert and non-hazardous materials are on site that do not release polluting gases. The potential sources of fugitive emissions to air have been identified and a Dust Management Plan has been prepared to prevent any potential dust emissions from reaching any nearby receptors. The Site Manager undertakes a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager | Unlikely due to measures in place and no hazardous wastes permitted on site | Respiratory illness including lung cancer and mesothelioma. | Low |

| To Water | | | | | | |
|---------------------------------|--|-------|---|-----------------------------------|---|-----|
| Contaminated rainwater run-off. | Surface water and groundwater Waterways listed in Table 2 | Water | <p>Permitted waste types are only inert and non-hazardous, they do not include hazardous wastes or those in sludge or liquid form. Any waste types stored in open stockpiles are inert and so any run-off that is generated on site is unlikely to be contaminated.</p> <p>The site is surfaced with impermeable hardstanding.</p> <p>The site benefits from a sealed drainage system where all run off drains into an aco drain which feeds into a full retention interceptor and holding tank. This ensure no contaminated rainwater runs off site.</p> <p>No hazardous wastes are permitted on site, this prevents the leaching of contaminants into groundwater.</p> <p>In the event of a spill, emergency procedures as outlined in the EMS will be followed.</p> <p>Fuel will be stored in a double bunded and locked tank, following strict Environmental Law to reduce chances of fuel spills.</p> <p>All wastes will be inspected on arrival, any non-conforming or non-permitted wastes will be stored in the designated quarantine bay located at a distance from other waste. All quarantined waste will be removed from site within 5 working days to reduce any potential contamination from the waste.</p> <p>There are strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the EMS.</p> | Very unlikely | Contamination of groundwater surface water bodies | Low |
| Run-off containing | Waterways listed in Table 2 | Water | Permitted waste types are only inert and non-hazardous so any silt will not be contaminated. | Very unlikely due to the positive | Contamination of local | Low |

| | | | | | | |
|------------------------------|--|-------------------------------|---|--|--|-----|
| high levels of silt | (particularly the River Wye) | Site run-off | <p>No hazardous wastes are permitted on site, this prevents the leaching of contaminants into groundwater.</p> <p>All wastes will be inspected on arrival, any non-conforming or non-permitted wastes will be stored in the designated quarantine bay located at a distance from other waste. All quarantined waste will be removed from site within 5 working days to reduce any potential contamination from the waste.</p> <p>There are strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the EMS.</p> <p>A strict housekeeping regime will be followed to ensure no dust, debris or litter is found on the surface of the site.</p> <p>The site is surfaced with impermeable hardstanding.</p> <p>The site has a sealed drainage system including all site run off draining into an aco drain to prevent silt from leaving the site and entering any nearby watercourses.</p> | drainage system | watercourses with silt laden run off | |
| Pest/Scavenging Birds | | | | | | |
| Birds and pests | Local population in residential dwellings, sensitive land uses, and woodlands listed in Table 2. | Air transport and over ground | <p>Permitted wastes stored onsite are not putrescible and so are not attractive to pests or scavenging birds.</p> <p>The site has a secure office/storage barn to prevent the entry of animals.</p> <p>The boundary of the site is surrounded by trees and vegetation to blend into the existing environment and not attract any birds or pests.</p> | Very unlikely due to the measures in place | Nuisance to local receptors within 1km of the permit boundary. | Low |

| | | | | | | |
|----------------------------|----------------------------------|-------------------------------|--|------------------------------------|--|-----|
| | | | <p>There are strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the EMS.</p> <p>The Site Manager will undertake regular reviews of pests and scavenging birds at the site. All site operatives will be vigilant and report any problems to the Site Manager.</p> | | | |
| Mud | | | | | | |
| Mud from vehicle movements | Users of local highways | Tracked on vehicle wheels. | <p>The use of a jet wash hose on site used to wash any muddy vehicles.</p> <p>If mud is deposited on the access road and/or highway then a road sweeper will be employed if necessary.</p> <p>All vehicles exiting the site would be checked for exterior mud or debris.</p> <p>The site benefits from an operational jet wash which will be used on any exiting HGVs to remove any mud or debris.</p> <p>The amount of mud on local roads will be monitored daily by site operatives.</p> | Unlikely due to measures in place. | Local nuisance. Mud on roads is unsightly and can increase the likelihood of road traffic accidents. | Low |
| Litter | | | | | | |
| Litter | All receptors listed in Table 2. | Air transport then deposition | <p>Waste types received by the site generally do not contain litter. Operatives will be vigilant, and any litter reported will be removed immediately.</p> <p>All incoming loads will be sheeted and remain sheeted until they are ready to be tipped.</p> <p>The site is surrounded by cliff walls that act to prevent the escape of any litter.</p> <p>There are strict waste acceptance procedures in place at the</p> | Unlikely due to measures in place. | Local nuisance | Low |

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|--|--|--|---|--|--|--|
| | | | site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the EMS. Working areas will be regularly cleared and inspected to minimise litter. Housekeeping measures are in place during operating hours. | | | |
|--|--|--|---|--|--|--|

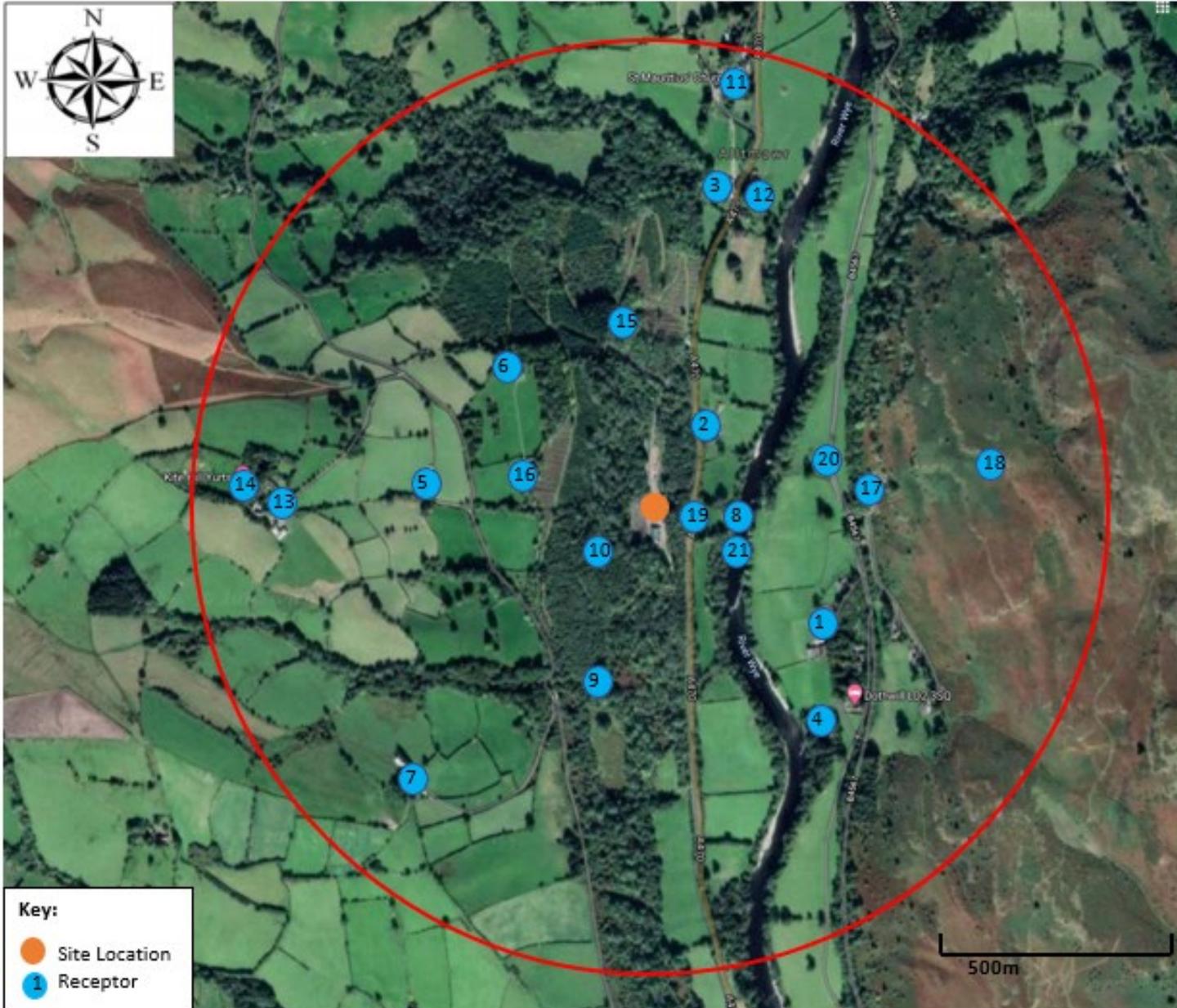
Table A4: Accident and Incident Risk Assessment and Management Plan

| What is the risk? | | | Managing the risk | Assessing the risk | | |
|--------------------------------------|---|---|---|-------------------------|--|---------------------------|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | What is the overall risk? |
| Fire or failure to contain firewater | Air transport then inhalation or deposition Groundwater and surface water. Local residents listed in Table 2 Woodlands | Infiltration and contamination of surface water | <p>The risk of fire is considered to be low as the proposed waste types are not combustible and no waste shall be burnt on site.</p> <p>The use of welding/cutting tools (tools with a naked flame) are sanctioned first by the site manager/competent person.</p> <p>All site operatives are required to recognise signs of smouldering waste at the point of reception. Such wastes shall remain in the container and removed to a safe area. The site manager shall be informed.</p> <p>All wastes will be inspected on arrival, any non-conforming, nonpermitted or combustible wastes will be stored in the designated quarantine bay located at a distance from other wastes. All quarantined waste will be removed from site within five working days to reduce any potential fires caused by waste.</p> <p>There will be strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the EMS.</p> <p>The site benefits from a sealed drainage system to contain any firewater.</p> <p>The operator will undertake routine maintenance of equipment in accordance with manufacturer’s guidance. This will minimise the risk of mechanical failure which may result in an increased risk of combustion.</p> <p>Site notices and training will be undertaken regarding fire hazards.</p> | Unlikely | Contamination of local groundwater and/or surface water. | Low |

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|-------------------------------------|--|------------------------------|---|---|--|-----|
| | | | <p>Site Manager will be responsible for actions in the event of a fire.</p> <p>The site has fire extinguishers on site.</p> <p>Fuel is stored in a double bunded and locked secure tanks so leaks from fuel which may contribute to a fire on site are unlikely.</p> | | | |
| Leaks and spillages of oil or fuel. | <p>Groundwater and surface water.</p> <p>Waterways listed in Table 2</p> | Infiltration | <p>The operator does not accept liquid wastes.</p> <p>The operator will undertake regular maintenance of plant equipment in accordance with manufacturer's guidance. This will minimise the risk of mechanical failure which may result in leaks.</p> <p>All fuel, oil and lubricants will be contained within bunded tanks. The tanks will be maintained and inspected in accordance with the manufacturer's recommendations.</p> <p>Daily vehicle / plant checks to ensure any fuel/oil leaks etc. are repaired as soon as possible.</p> <p>The site benefits from a sealed drainage system which will contain any leaks or spills. It includes a full retention interceptor to separate any hydrocarbons out.</p> <p>The site will follow secondary risk management provisions such as spill kits, emergency response procedures as detailed in the site EMS and staff training to manage spills.</p> <p>The Site Manager will be responsible for ensuring effective remediation and documenting any incident.</p> | Unlikely due to measures in place. | Contamination of land and watercourses. | Low |
| Flooding | Groundwater | Infiltration and Percolation | <p>The site is not located in an area at risk of flooding from rivers or surface waters.</p> <p>Hazardous waste is not permitted on site.</p> | Unlikely due to measures in place in the nature of the proposed | <p>Disruption to works operations</p> <p>Contamination</p> | Low |

| | | | | | | |
|---|---|--------------------------------|---|--|---|-----|
| | | | The waste stored onsite is unlikely to cause contamination of groundwater through infiltration as the proposed waste types likely to cause pollution will be covered when stored. Due to the nature of waste types which are proposed to be accepted on site, if surface water comes into contact with these wastes, significant pollution or contamination of groundwater or surface water is considered unlikely. | development. | of local groundwater and/or surface water | |
| Vandalism | Groundwater Local population in residential dwellings and sensitive land uses listed in Table 2. | Unauthorised entry to the site | The site has operating 24-hour CCTV. Access to the waste area will be restricted to trained depot staff. Any fuel or valuables will be stored in locked storage. Any identified damage to the locked storage that could compromise the site security will be recorded and reported to the landowner. A temporary repair will be made as necessary before the end of the working day. Permanent repair or replacement will be undertaken as soon as practicable. Procedures are in place which require all visitors to the site to sign in on arrival and sign out on departure. | Unlikely due to measures in place. | Release of polluting materials to air, water or land. | Low |
| All on-site hazards from wastes; machinery and vehicles | Local human population gaining unauthorised entry to the site, site staff and contractors. | Direct physical contact | Activities will be managed and operated in accordance with an EMS which will include measures to prevent unauthorised access. Wastes, machinery, and vehicles will be handled by trained site operatives. All plant is serviced and maintained as part of a cyclical maintenance plan. | There is always a risk of accidents, but measures have been put in place to reduce the risk associated with site activities. | Injury or health effects | Low |

Appendix B – Sensitive Receptor Plan



| ID | Receptor |
|---------------------------------|-----------------------------------|
| Residential | |
| 1 | Sheep Wash |
| 2 | Cwrt-Gwenddwr |
| 3 | Properties on A470 |
| 4 | Tyrcelyn Halt |
| 5 | Upper Pentywyn |
| 6 | Lower Pentywyn |
| 7 | Erw'rhenallt |
| Woodland and Waterways | |
| 8 | River Wye |
| 9 | Cwm Dyfnant |
| 10 | Broadleaved woodland |
| Sensitive Land Uses | |
| 11 | St Maurits Church |
| 12 | Chapel Farm |
| 13 | Bedw Farm |
| Industrial/Commercial | |
| 14 | Kite Hill Yurts |
| Public Rights of Way | |
| 15 | Public Bridleway (off the A470) |
| 16 | Public Footpath |
| 17 | Public Footpath (off the B4567) |
| 18 | Public Bridleway |
| Infrastructure/utilities | |
| 19 | A470 |
| 20 | B4567 |
| Species | |
| 21 | Important Plant Areas (Plantlife) |

