



# Jobling Purser – Haltwhistle Waste Recovery Facility

## Appendix G: Environmental Risk Assessment for EP Application

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|-------------|------------------------|
| Client:     | Jobling Purser Limited |
| Project No: | 2524                   |
| Version:    | V1                     |
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# Document Information

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| Client Name:     | Jobling Purser Limited                                                       |
| Client Contact:  | Patrick Coulson                                                              |
| Client Address:  | Paradise Works, Scotswood Road, Newcastle Upon Tyne, Tyne and Wear, NE15 6BZ |
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| Author:          | Rebecca Hodkinson                                                            |
| Approved:        | Ruth Fain                                                                    |
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# 1. Introduction

## 1.1 General

Jobling Purser Limited (the applicant) has engaged Aurora Environmental (the agent) to prepare an Environmental Permit (EP) application, for a new waste recovery facility at Hadrian Enterprise Park, Haltwhistle, Northumberland, NE49 0EX.

The site is located at NGR NY 71235 63805, in a commercial/industrial area. The facility was previously permitted by the EA for waste management activities, under WDL141 (which became WML NBL/141 then WML 67397) which was granted in July 1993 for a household waste amenity site. This was operated by SITA. The permit was surrendered in September 2003, so the site is currently unregulated.

The site is being developed by the applicant as 'Haltwhistle Waste Recovery Facility' and will operate as a treatment facility for inert waste and limited, specified, hazardous wastes. The EP reference provided at pre-application stage is EPR/EP3922LD/P001.

The objective of this application is to obtain a bespoke waste operation EP which allows the applicant to store and treat waste to produce soil, soil substitutes and aggregate. The EP application proposes the following waste operations:

- Waste Operation A1 - Recovery of non-hazardous waste involving physico-chemical treatment of hazardous waste (R3, R5). This includes the storage of waste pending treatment for recovery (R13). This waste stream is inert and will be treated by sorting, separation, screening, crushing, bulking in order to produce an end-of-waste/product for resale. The stream will include returned product (primarily from customers who have over-ordered) which will be re-processed.
- Waste Operation A2 – Disposal or recovery of hazardous waste with a capacity of less than 10 tonnes per day involving physico-chemical treatment of hazardous waste (R3, R5, D9). No active treatment is proposed for this waste stream. It will operate as a storage and transfer activity only. Testing will be carried out on site to confirm hazardous properties and subsequently transferred offsite for recovery or disposal as applicable (R13, D15).

Three directly associated activities (DAAs) are also proposed as follows:

- On site storage, and use, of raw materials (in this case limited to diesel for plant and machinery);
- Storage of waste pending transfer off-site for disposal (D14) – this applies to Waste Operation A2, and to any erroneous/non-conforming materials extracted from the inert waste stream in Waste Operation A1; and
- Management of uncontaminated surface (clean yard) water.

Storage of hazardous waste will be limited to <50 tonnes at any one time (proposed limit of 500 tonnes per year). The facility has the capacity to process 80,000 tonnes per year in total. Storage and transfer of hazardous waste will be limited to two waste streams and limited to <50 tonnes storage capacity. The proposed wastes for both operations are presented in Tables S2.1 and S2.2 in Appendix H of the application.

Question 6 of EA application form Part B2 requires the provision of an environmental risk assessment (ERA).

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This ERA assesses the proposals, and the methodology follows the EA source-pathway-receptor model. It sets out the risks of potential failure or incident scenarios related to the proposed activities and assesses these in terms of the potential impact on any sensitive receptors. The risk assessment concludes that the residual risk of the processing of waste is appropriate and insignificant when managed in accordance with BAT. The only exception is with regards to dust management; for this reason, a Dust Management Plan (DMP) has been produced and is provided in Appendix J.

## 1.2 Site Setting

The site is located on the southeastern outskirts of Haltwhistle. Haltwhistle is approximately 37 km to the east of Carlisle and 60 km west of Newcastle Upon Tyne.

The site sits on the easterly edge of the Hadrian Enterprise Park commercial/industrial estate, to the immediate waste of the A69. The River South Tyne runs in a westerly to easterly direction to the south of the site. The area presented for this EP application occupies land that was most recently used as a civic amenity site as described above.

The site setting is summarised in Table ERA1.

**Table ERA1 – Site Setting**

| Direction | Features                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| North     | <p>A railway line runs parallel with the northern boundary of the site, beyond the access road.</p> <p>Hadrian Enterprise Park extends a further 100 m to the north immediately beyond the railway line</p> <p>Beyond the estate is the B6322 which runs east to west at approximately 125 m</p> <p>Haltwhistle Castle and its grounds are immediately beyond the B6322</p> <p>The closest residential receptor is approximately 200 m to the northeast</p> <p>Haltwhistle Burn runs around the western edge of this residential area</p> |
| East      | <p>An area of woodland lies immediately to the eastern boundary, beyond which lies the A69 which runs in a northeasterly direction</p> <p>Haltwhistle Burn runs in a southerly direction at approximately 170 m</p> <p>A sewage works is at 270 m and is screened from the site with trees</p> <p>A large campsite is immediately beyond the sewage works.</p>                                                                                                                                                                            |
| South     | <p>The A69 runs diagonally across the southern boundary of the site</p> <p>The River South Tyne passes under the A69 and is 250 m at its closest point</p> <p>A number of commercial properties are located on the southern side of the river, beyond Plenmeller Road</p> <p>Beyond these are open fields and areas of woodland/trees</p> <p>The closest residential properties are approximately 600 m beyond this area of open fields</p>                                                                                               |
| West      | <p>Hadrian Enterprise Park extends to the west for approximately 650 m until it meets Plenmeller Road and the railway</p>                                                                                                                                                                                                                                                                                                                                                                                                                 |

### 1.3 Sensitive Receptors

Key sensitive receptors are considered to be those within specified distances of the site, depending on the nature of that receptor; the potential impact to these from certain sources will depend on the weather conditions.

Figure ERA1 presents the wind rose for the area. This has been sourced from a met station located at Albermarle (formerly RAF Ouston), which is the closest to the application site and lies approximately 35 km to the east and is based on data for a 3 year period, 2022 - 2024. This is the closest station that sits at a similar elevation with comparable surroundings to the site.

The perceived impact at receptors located down-wind are likely to be more than at those located cross or up-wind for certain sources like dust, litter, odour, noise. Some receptors are more sensitive than others, for example a residential area is likely to be more sensitive than an industrial estate.

Figure 1: Wind Rose – Albermarle (2022 – 2024)

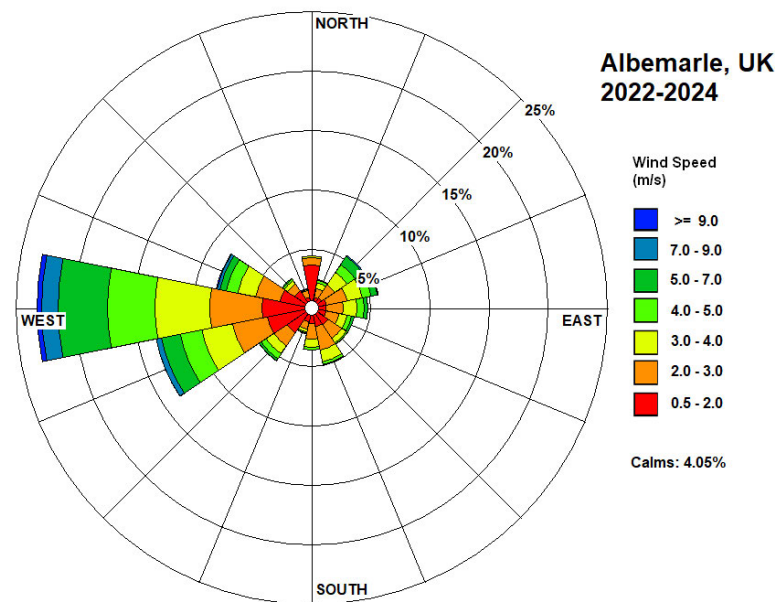


Table ERA2 lists the sensitive receptors within 2 km of the proposed facility.

**Table ERA2: Sensitive Receptors within 2 km**

| Receptor                                                   | Distance at closest point | Direction | Receptor Type                                            | Relative Risk of Impact |
|------------------------------------------------------------|---------------------------|-----------|----------------------------------------------------------|-------------------------|
| Residential Properties – down gradient                     | 200 m                     | NE        | Residential properties – potential all day presence      | High                    |
| Workers in nearby Hadrian Enterprise Park – cross gradient | 100 m                     | N         | Commercial/industrial workplace - working hours presence | Moderate                |
| Workers in nearby Hadrian Enterprise Park – up gradient    | Immediately adjacent      | W         | Commercial/industrial workplace - working hours presence | Low                     |
| Haltwhistle Castle – cross gradient                        | 150 m                     | N         | Open public space – transient use by public              | Moderate                |
| South Tyne River – cross gradient                          | 250 m                     | S         | Waterway – transient use by public / habitats            | Moderate                |

The pre-application advice confirmed no conservation sites within the screening distance from the site.

The receptors above have been taken into consideration in the risk assessment.

## 2. Risk Assessment

Table ERA 3 presents the risk assessment for the proposed installation.

Table ERA 3 Environmental Risk Assessment

| Hazard                                                     | Receptor                                                                                                                                                                                                                                        | Harm                                                                                                                                                                                         | Pathway                                                                                                                           | Likelihood of Exposure | Consequence | Magnitude of Risk | Justification of Magnitude                                                                                                                                                                | Control Measures                                                                                                                                                                                                                                                                                                                                                                                                                         | Residual Risk |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Releases of particulate matter (dusts)                     | Local human population/presence. The closest residential receptors are 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N; River South Tyne is 250 m to the S                                   | Nuisance - dust on cars, clothing etc.                                                                                                                                                       | Transportation through air then inhalation or deposition                                                                          | High                   | High        | High              | Permitted waste is potentially dusty, and delivered loose, and processed outside of a building                                                                                            | Waste is delivered in covered vehicles. Plant is subject to scheduled maintenance and service. A bowser is present on site, if required, to dampen waste / roads. A DMP is in place for the facility.                                                                                                                                                                                                                                    | Medium        |
|                                                            |                                                                                                                                                                                                                                                 | Harm to human health - respiratory irritation and illness; harm to ecological features through toxic contamination or smothering                                                             |                                                                                                                                   | High                   | Medium      | Medium            |                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                          | Low           |
| Fire from waste or fuel storage and/or processing of waste | Local human population/presence. The closest residential receptors are 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N' River South Tyne is 250 m to the S                                   | Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists / vandals. Pollution of water or land from run-off of contaminated fire water. | Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches | Low                    | High        | Medium            | The impact of a fire on the immediate local area can be significant, and the pollution require short to medium term remediation. Waste is non-combustible. Only diesel is stored on site. | Regular inspections and maintenance of key process plant and equipment (following PPM programme). Thermal cutouts on applicable equipment. Diesel tank stored remotely from the storage of waste, and subject to inspection                                                                                                                                                                                                              | Low           |
| Litter                                                     | Local human population/presence. The closest residential receptors are 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N                                                                       | Nuisance, loss of amenity and harm to wildlife (disturbance)                                                                                                                                 | Air transport then deposition                                                                                                     | Low                    | Low         | Low               | Local residents and habitat receptors are often sensitive to litter emissions however permitted wastes are not litter-generating.                                                         | Daily inspection will identify if there are any areas of build-up of litter and any issues will be cleared as soon as practicable.                                                                                                                                                                                                                                                                                                       | Very Low      |
| Waste and mud on local roads                               | Local human population/presence. The closest residential receptors are 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N. Site access is off the estate haul road which joins the A69 to the S | Nuisance, loss of amenity, road traffic accidents                                                                                                                                            | Vehicles entering and leaving the site                                                                                            | Low                    | Medium      | Medium            | Road safety, local residents are often sensitive to mud on roads.                                                                                                                         | The site is on predominantly unmade ground, allowing surface water to soak away. During wet weather, daily inspection will identify if there are any areas of build-up of mud on internal and local roads and any issues will be cleared as soon as practicable; any complaints will be recorded, and an investigation will be undertaken, and findings acted upon. A jet wash is provided on site to wash exiting vehicles if required. | Low           |
| Odour                                                      | Local human population/presence. The closest residential receptors are 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N                                                                       | Nuisance, loss of amenity                                                                                                                                                                    | Air transport then inhalation                                                                                                     | Low                    | Medium      | Medium            | Local residents and public area users are often sensitive to odour, but permitted waste types are not odorous                                                                             | Daily inspection will identify if there are any odour issues                                                                                                                                                                                                                                                                                                                                                                             | Low           |
| Noise and vibration                                        | Local human population/presence. The closest residential receptors are 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N                                                                       | Nuisance, loss of amenity; harm to ecological features through disturbance                                                                                                                   | Noise through the air and vibration through the ground                                                                            | Medium                 | Medium      | Medium            | Local residents are often sensitive to noise and vibration, closest residents are 200 m from the site, the site is within an existing 24/7 operational industrial area                    | The noise design specification for the plant ensures employees are protected; plant does not exceed 80 dBA at 1 m from the noise source. Any complaints will be recorded, and an investigation will be undertaken and findings acted upon.                                                                                                                                                                                               | Low           |
| Scavenging animals (e.g. rats) and                         | Local human population/presence. The closest residential receptors are                                                                                                                                                                          | Harm to human health, nuisance, and loss of amenity; Harm to                                                                                                                                 | Air and over land                                                                                                                 | Low                    | Medium      | Medium            | Permitted waste and raw materials are very                                                                                                                                                | Pest control measures are in place.                                                                                                                                                                                                                                                                                                                                                                                                      | Low           |

| Hazard                                                                                                     | Receptor                                                                                                                                                                                                      | Harm                                                                                                                                                                                                                    | Pathway                                                                                                                            | Likelihood of Exposure | Consequence | Magnitude of Risk | Justification of Magnitude                                                                                                                                                                | Control Measures                                                                                                                                                                                                                               | Residual Risk |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| scavenging birds; and Pests (e.g. flies)                                                                   | 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N                                                                                                            | ecological features through predation                                                                                                                                                                                   |                                                                                                                                    |                        |             |                   | unlikely to attract scavenging animals and birds or pests                                                                                                                                 |                                                                                                                                                                                                                                                |               |
| Spillage of liquids                                                                                        | Local human population/presence. The closest residential receptors are 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N; River South Tyne is 250 m to the S | Harm to human health and animal health                                                                                                                                                                                  | Via drains                                                                                                                         | Low                    | Medium      | Medium            | Permitted waste does not include liquids; raw materials limited to diesel.                                                                                                                | Diesel tank stored remotely from the storage of waste, and subject to inspection                                                                                                                                                               | Low           |
| Flooding of site                                                                                           | Local human population/presence. The closest residential receptors are 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N; River South Tyne is 250 m to the S | Waste and/or raw materials washed off site may contaminate downstream receptors                                                                                                                                         | Flood waters flowing over land and soaking into the ground                                                                         | Low                    | Medium      | Medium            | Permitted waste includes hazardous waste. Site within a flood plain                                                                                                                       | The hazardous waste is tar-bound RAP which does not leach. Diesel tank is double skinned and bunded and subject to inspection                                                                                                                  | Low           |
| Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land | Local human population/presence. The closest residential receptors are 200 m to the NE; the closest commercial receptors are the other units on the estate to the W and N; River South Tyne is 250 m to the S | Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists/vandals Pollution of water or land. Harm to ecological features through toxic contamination or smothering | Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches. | Low                    | High        | Medium            | The impact of a fire on the immediate local area can be significant, and the pollution require short to medium term remediation. Waste is non-combustible. Only diesel is stored on site. | Site is secure by palisade fencing and lockable gates; there is a fire alarm and CCTV. During operational hours access is only granted to authorised vehicles and visitors. Diesel tank is double skinned and bunded and subject to inspection | Low           |

### 3. Conclusion

Further details on the control measures are provided in the BAT Assessment completed for the variation application (Appendix I of the variation application). These include details on:

- Waste pre-acceptance
- Waste acceptance
- Waste storage and handling
- Use of raw materials
- Treatment
- Emissions

On the basis of the assessment above, which follows the H1 approach for risk assessment, it is considered that the control measures that are proposed to be implemented for the new activities are appropriate.

Given the proximity of the closest residential receptors and the nature of the waste types and operations, the need for further assessment of dust has been identified. This is documented in the separate specific management plan, the DMP (Appendix J).

The ERA is a live document and will be subject to regular review throughout the life of the permitted operations. It will also be amended, if required, following any significant change to operations, an incident resulting in an environmental impact, and/or any substantiated complaints.

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