

AMENITY RISK ASSESSMENT

1.1 Introduction

- 1.1.1 The document presents an assessment of the risks to amenity posed by the operation of a paint reuse and shot blasting facility at Nantycaws HCI Transfer and Treatment Facility.
- 1.1.2 This risk assessment has been undertaken in accordance with generally available NRW guidance and the Environment Agency Guidance on 'Risk assessments for your environmental permit', published 1st February 2016.

1.2 Site Setting

Site Description

- 1.2.1 Nantycaws Household, Commercial and Industrial Transfer and Treatment Facility is located c. 1.1km to the south of the village of Nantycaws at National Grid Reference: SN 47393 17563. The location of the site is presented on **Drawing No. CWM1013/5/01**.
- 1.2.2 The site is bounded to the north and west by the wider footprint of the applicant's waste management facilities. The site's unclassified access road is situated to the immediate north and north west, beyond which lies the applicants Materials Recycling Facility (MRF) operations, as well as the site office and weighbridge. A landfill gas compound is also situated to the west of the HCI WTTF operations. The site is bound to the south by hedgerows and agricultural fields, with IVC composting activities situated to the east, beyond which lies an area of woodland.
- 1.2.3 The site is currently operated as a HCI WTTF whereby members of the public sort non-hazardous and hazardous waste streams into appropriate receptacles. The non-hazardous waste is permitted to be treated by sorting, separation, shredding, compaction and dewatering. Currently there is no permitted treatment of hazardous waste, however this EPVA is seeking treatment of hazardous waste paint only. All treatment and storage of waste takes place on an impermeable surface with sealed drainage.
- 1.2.4 The nearest residential properties include those at "Llety-dau-filwr", located c. 235m to the south east, as well as "Bronhafod", "Falcondale" and "Avalon" located approximately 280m to the east of the proposed operations. A fuel station is located to the north of the A48, approximately 460m north of the paint blending and stripping operations.
- 1.2.5 There is one Site of Special Scientific Interest (SSSI) located within 1km of the site. Pen Ty Pastures and Wood (Gweunydd a Choed Pen-Ty) is situated c. 985m to the south east of the HCI waste transfer and treatment facility operations. It represents two areas of unimproved herb-rich grassland linked by a wet semi-natural wood. This habitat complex is of botanical and entomological interest, supporting a number of uncommon species. There are no Special Protection Areas (SPA) and/or Special Areas of Conservation (SAC) within a 1km radius of the site.
- 1.2.6 The site is located within the administrative area of Carmarthenshire County Council. It currently has no designated AQMA's (Air Quality Management Areas) within 2km of the site.
- 1.2.7 The site is not located within a Nitrate Vulnerable Zone (NVZ) for surface and ground water and has not been designated by DEFRA and Natural Resources Wales.

- 1.2.8 In terms of Flood Risk, (Natural Resources Wales (NRW) data has been reviewed and found that the site sits outside any recognised floodplains and associated flood zones in an area, therefore, where flooding from rivers and the sea is highly unlikely. There is less than a 0.1 per cent (1 in 1000) chance of flooding occurring each year.
- 1.2.9 There are no Groundwater Source Protection Zones (SPZ) located within approximately 1km of the site centre.
- 1.2.10 **Table ARA1** summarises the potential sensitive receptors that have been identified through a desk top assessment of the locality and the corresponding distance from the paint blending and stripping operations. The locations of the receptors are shown in **Drawing No. CWM1013/5/05**.

Table ARA1: Potential Sensitive Receptors identified within 500m of the site

ID	Receptor Name	Type of Receptor	Approximate nearest distance from the paint blending & stripping operations	Direction from the paint reuse and shot blasting facility	Description
R1	Nantycaws Waste Management Facility (including the HWRC)	Public use and Commercial	Adjacent	N/W	Waste Management Facility comprising, MRF's, landfill, composting activities and HWRC. The waste management facilities are owned and operated by the applicant.
R2	Llety-dau-filwr	Residential	235m	SE	Residential property
R3	Bronhaford, Falcondale and Avalon	Residential	275m-290m	S/SE	Several residential properties
R4	Ty Hen	Residential	460m	NW	Secluded unoccupied residential property
R5	Nantycaws Fuel Station	Commercial	450m	N	Fuel station and shop located on the A48.
R6	A48 Dual Carriageway	Public Highway	390m	N	Public highway – South Wales Trunk Road
R7	Small tributary of the Afon-y-Bantwen	Surface Water	230m	SE	Unnamed tributary of the Afon-y-Bantwen River
R8	Agricultural Land	Agricultural	50m – 500m	N,S,E, NW	Agricultural land used for cultivation of arable crops and/or the grazing of livestock.
R9	Public Highway	Public Highway	320m – 480m	E/NE/N/N W	Unnamed public highway

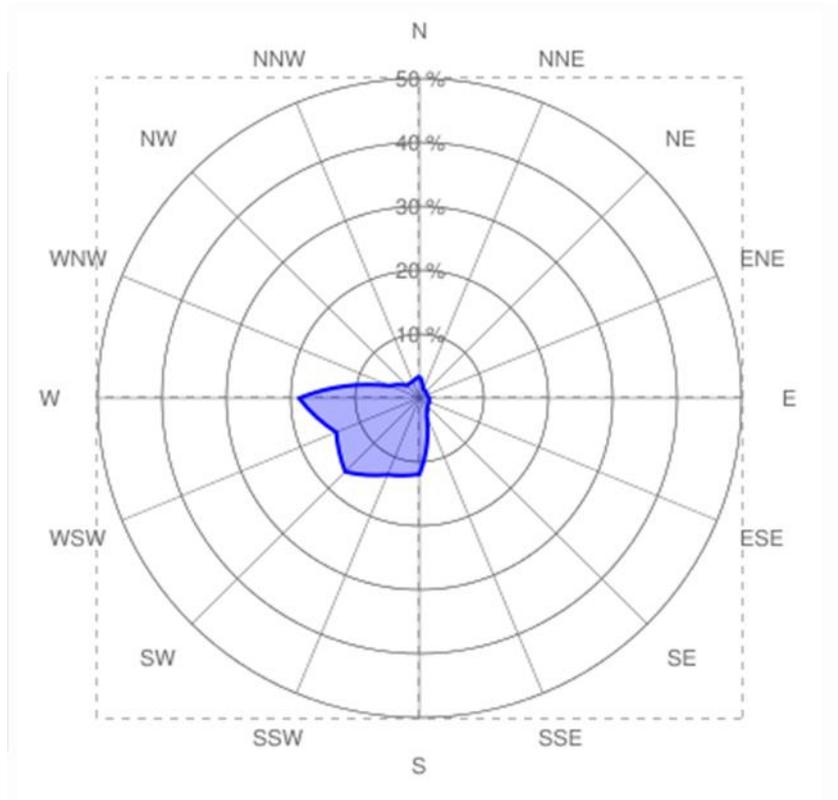
Meteorological Conditions

- 1.2.11 The closest meteorological station is located at Pembrey Sands which is situated c. 17km south-west of the site. In terms of its environmental setting, the station at Pembrey Sands is situated on the coast, whereas the paint reuse and shot blasting facility is situated in-land. However, data is only available from 3 weather stations situated across South Wales (Pembrey Sands, RAF St Athans and Cardiff Airport). Weather stations in England which may be more appropriate in terms of their inland

setting have been deemed inappropriate due to their distance from the site. Therefore, the station at Pembrey Sands is considered the most appropriate for use.

1.2.12 Data from RenSMART Wind data archive, for a 10-year period between 2000 and 2010 at Pembrey Sands has been utilised to characterise the meteorological conditions which are likely to be experienced on site.

Figure ARA1: Wind rose for Pembrey Sands 2000-2010 (inclusive)



1.2.13 The wind rose for Pembrey Sands is illustrated in **Figure ARA1** and indicates that the predominant wind direction is from the west and south west.

1.3 Risk Assessment

Risk Assessment Criteria

1.3.1 The risk assessments will be prepared using the widely-accepted source-pathway-receptor methodology, and is the preferred method specified in the EA guidance (utilised by NRW). Where any complete source-pathway-receptor linkage exists the magnitude of any such risk is qualified by the probability and consequence of any such risk occurring. The criteria to be adopted for the risk assessment are present in **Table ARA2**.

Table ARA2: Risk Assessment Criteria

Probability ⇔ Consequence ↓	Very Low	Low	Moderate	High
Very Low	Negligible	Very Low	Low	Low-Moderate
Low	Very Low	Low	Low-Moderate	Moderate
Moderate	Low	Low-Moderate	Moderate	High
High	Low-Moderate	Moderate	High	Very high

1.3.2 An amenity risk assessment for the paint reuse facility and shot blasting facility is presented in **Appendix ARA1**. The assessment covers the following potential risks:-

- Fugitive emissions to air;
- Mud and Debris on the road
- Bird, Vermins and Insects
- Noise & Vibration;
- Odour;
- Fugitive emissions to water