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Habitat Risk Assessment

Survey site:

G E Heard & Sons Marshlands Road, Farlington, Portsmouth, PO6 1SS

Client:

G E Heard & Sons

Survey date:

21st March 2025

Project:

This report is prepared to inform a permit application with the Environmental Agency. The permit is:

Hazardous Waste Site Permit to reconditioned drums and IBCs

The survey results and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.

Site Location and Context					
G E Heard & Sons specializes in the reconditioning of drums previously used to contain various chemicals, oils, and hazardous materials. The facility's primary function is to clean, inspect, repair, and reuse these drums in compliance with environmental safety standards. The site is located in Farlington, Portsmouth at the National Grid Reference SU 67945 05036 and has an area of approximately 0.14ha, comprising buildings and hardstanding and associated infrastructure. It is surrounded by commercial and industrial buildings, which includes Part Worn Tyres 4 U, Cobra Tool & Die Ltd and Portsmouth Fibreglass Centre. There is a train track just south of the site, with Farlington Playing Field southwest. The wider landscape includes residential buildings, further commercial buildings, public parks and playing fields, pockets of woodland and watercourses. The underlying geology is bedrock of Chalk Formation with superficial deposits recorded as River Terrace Deposits, comprising Sand, Silt and Clay. The site is not within a Source Protection Zone. A site location plan is provided in appendix 2.					
Survey Details					
The site survey was undertaken by Anna Dolby, BSc (Hons) (Accredited Agent: Natural England Protected Species Licence Numbers: [Bats] (2018-33540-CLS-CLS)					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
21/03/2025	12	63	100	0	None
Executive Summary					
This Habitat Risk Assessment Report evaluates the potential risks to the surrounding environment and habitats associated with the reconditioning of drums at G E Heard & Sons facility. The reconditioning process involves handling and treating drums that may contain hazardous contaminants, including polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPHs), nitrates, solvents (paints). This assessment is conducted to support the					

application for a hazardous waste site permit, ensuring that the company complies with relevant environmental regulations and best practices to minimize risks to the environment and surrounding habitats.

Survey limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the potential pathways of contamination on site and what impact that could have on surrounding habitats and designated sites.

Due to seasonal limitations, further survey within the optimal season for surveying vegetation would normally be required to obtain accurate habitat classification and condition assessment data.

In the interests of proportionality, this assessment should be realistic. Precautionary classification is drawn from analysis of the overwintering assemblage alongside information gathered during the desk study regarding underlying geological strata, associated hydrogeology, hydrology, history, current and historic management, wider landscape context, assemblages present in local designated sites (and any other relevant factors). An estimation is made of how the site may differ in its condition variables between summer and winter.

Ecological Survey Factor Conclusion, Impact or Recommendations	Detailed using desk study and site survey. Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.
Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, Designated Site location map in appendix 3 and photos in appendix 4). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).	
<i>Summary of Survey Findings</i> <i>(UKHab codes used)</i>	The site does not contain any habitats listed as a habitat of principle importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). <i>On Site Habitats</i> • Buildings (u1b5) • Developed land, sealed surface (u1b) <u>Buildings (shown in photo 4)</u> There is one main building onsite, which contains the reconditioned drums. <u>Developed land, sealed surface (shown in photo 3)</u> The whole site is encompassed by hardstanding, with a low bunding wall along the southern boundary, to prevent any spills into offsite habitats.

	Target notes: <u>Collection pit</u> Towards the southern site boundary, there is a collecting pit (settlement tank), which is used as a drain for the barrel washing onsite. This is drained and disposed of offsite each month and then cleaned before it is refilled. <u>Ventilation System</u> There is a ventilation system for the buildings onsite, due to the containment of the reconditioned drums. <i>Adjacent Offsite Habitats</i> • Mixed scrub <u>Mixed scrub (shown in photos 6 and 7)</u> There is an area of scrub adjacent to the southern site boundary, between the site and train tracks. Species includes: D: Buddleja <i>Buddleja davidii</i> F: Bramble <i>Rubus fruticosus</i> O: Stinging nettle <i>Urtica dioica</i> <i>Assessment of Conservation Value at the Geographical Level and Magnitude of Impact</i> The site and surrounding area contain habitats which are predicted to be of Local importance to conservation. <i>The Wider Landscape</i>
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	Although there are no notable habitats on site, there are notable habitats within a 2km radius of the site boundary, the closest being coastal and floodplain grazing marsh ~0.17km south. The habitats between the grazing marsh and site include scrub, train tracks, a building, grassland and a sluice. Other notable habitats include coastal saltmarsh, coastal vegetated shingle, mudflats, saline lagoons, lowland calcareous grassland, lowland meadows, reedbeds, ancient woodland and deciduous woodland.
<i>Foreseen Impacts</i>	<i>On Site Habitats</i> No impact anticipated. <i>Adjacent Offsite Habitats</i> Without adhering to the proper industry standards for storage and disposal, the offsite scrub and soil beneath could be impacted by the contaminants onsite, due to surface runoff. However, the bunding walls present onsite provide a suitable barrier to prevent this. <i>The Wider Landscape</i> No direct impacts to any notable habitats will occur as a result of the storage and disposal of containers. In consideration of the relative proximity of the site to coastal and floodplain grazing marsh, there is a limited potential for indirect contamination to migrate off site through lateral surface run off, without suitable mitigation. However, there is currently bunded hardstanding and soakaway drainage in place to prevent this.
<i>Recommendations</i>	The proposed development is unlikely to directly impact offsite adjacent habitats or notable habitats in the wider landscape. While there is potential for indirect contamination to nearby offsite habitats, such as scrub, this risk can be mitigated by the bunding walls onsite, which effectively prevent surface runoff if checked regularly. Additionally, the

	proximity of the site to coastal and floodplain grazing marsh does pose a risk of indirect contamination, but with proper safeguards in place, this impact is minimal.
Locality and Designated Sites	
<i>Summary of Survey Findings</i>	On Site The site is not subject to any statutory designation. The Wider Landscape There are five statutory sites and one non-statutory site within a 2km radius of the site: <u>Langstone Harbour Site of Special Scientific Interest (SSSI) ~0.47km south</u> Langstone Harbour is a tidal basin, at high water it resembles an almost land-locked lake, at low water extensive mud flats are exposed. These are drained by three main channels, which unit to make a common and narrow exist to the sea. The SSSI includes Farlington Marshes, a peninsula of grassland and marsh on reclaimed tidal silt protected by a sea wall. The site supports an assemblage of intertidal invertebrates, with large populations of migrant and overwintering waders and wildfowl. <u>Farlington Marshes Local Nature Reserve (LNR) ~0.49km south</u> Farlington Marshes is the Trust's oldest nature reserve. It is 125 hectares (308 acres) of flower-rich grazing marsh on the northern shore of Langstone Harbour between Portsmouth and Havant. Farlington is internationally important for the bird populations that it supports, as well as being a blaze of colour in spring and summer with many flowers and butterflies.

	<u>Chichester and Langstone Harbour Ramsar and Special protection Area (SPA) ~0.51km south</u> SPA: The site qualifies under Article 4.2: - Regularly supports more than 10,000 wintering wildfowl (average 25,000) and more than 20,000 wintering waders (average 77,000). It also supports internationally important numbers of the following species: <i>Pluvialis squatarola</i> (3.9% of the west European population) <i>Calidris alba</i> (3.1%) <i>Calidris alpina</i> (2.6% and over 20,000 birds) <i>Tringa totanus</i> (1.4%) <i>Branta bernicla</i> (12%) <i>Tadorna tadorna</i> (4%) <i>Anas crecca</i> (1%) Internationally important numbers of migratory bird species: <i>Charadrius hiaticula</i> <i>Numerius Arquata</i> <i>Limosa lapponica</i> <i>Arenaria interpres</i> <i>Anas Penelope</i> <i>Anas acuta</i> <i>Anas clypeata</i> <i>Mergus serrator</i>
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	Ramsar: Criteria 1 Two large estuarine basins linked by the channel, which divides Hayling Island from the main Hampshire Coastline. The site includes intertidal mudflats, saltmarsh, sand, shingle pits and sand dunes. Criteria 5 Assemblages of international importance: Species with peak counts in winter: 76480 waterfowl (5 year peak mean 1998/99-2002/2003) Criteria 6 Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in spring/autumn: • Ringed plover, <i>Charadrius hiaticula</i>, 853 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9-2002/3) • Black-tailed godwit, <i>Limosa limosa islandica</i>, 906 individuals, representing an average of 2.5% of the population (5 year peak mean 1998/9-2002/3) • Common redshank, <i>Tringa totanus totanus</i>, 2577 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3) Species with peak counts in winter: • Dark-bellied Brent goose, <i>Branta bernicla bernicla</i>, 12987 individuals, representing an average of 6% of the population (5 year peak mean 1998/9-2002/3)
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	• Common shelduck, <i>Tadorna tadorna</i>, 1468 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3) • Grey plover, <i>Pluvialis squatarola</i>, 3043 individuals, representing an average of 1.2% of the population (5 year peak mean 1998/9-2002/3) • Dunlin, <i>Calidris alpina alpina</i>, 33426 individuals, representing an average of 2.5% of the population (5 year peak mean 1998/9-2002/3) Species regularly supported during the breeding season: Little tern, <i>Sterna albifrons albifrons</i>, 130 apparently occupied nests, representing an average of 1.1% of the breeding population <u>Solent Maritime Special Area of Conservation (SAC) ~0.57km south</u> Annex I habitats that are a primary reason for selection of this site: • Estuaries • Spartina swards <i>Spartinion maritimae</i> • Atlantic salt meadows <i>Glauco-Puccinellietalia maritimae</i> Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Sandbanks which are slightly covered by sea water all the time • Mudflats and sandflats not covered by seawater at low tide • Coastal lagoons • Annual vegetation of drift lines • Perennial vegetation of stony banks • Salicornia and other annuals colonizing mud and sand
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	- Shifting dunes along the shoreline with <i>Ammophila arenaria</i> Annex II species present as a qualifying feature, but not a primary reason for site selection: - Desmoulin's whorl snail <i>Vertigo moulinsiana</i> <u>Solent and Isle of Wight Lagoons SAC ~0.95km south</u> Annex I habitats that are a primary reason for selection of this site: - Coastal lagoons <u>Langstone Harbour RSPB Reserve ~0.98km east</u> The site is a diverse landscape of tidal mudflats, mudflats, saltmarsh, seagrass meadows and shingle; supporting an internationally important number of breeding seabirds and overwintering wildfowl. <u>Portsdown SSSI ~1.95km northwest</u> The site is an isolated east-west chalk anticline with a long south facing escarpment which remains un-reclaimed. On the lower south facing slopes raised beaches mark former sea levels and it is postulated that former wave erosion has removed the Tertiary deposits and some of the chalk, leaving very steep slopes. These slopes support rich chalk grassland flora, with an assemblage of insects. Scrub covers a large area of the chalk grassland. The site lies within the impact risk zone for Langstone Harbour and Portsdown Sites of Special Scientific Interest (SSSI). No development will take place at the site.
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	The presence of non-statutory designated sites within 2km cannot be established without biological records data from the Local Biological Records Centre.
<i>Foreseen Impacts</i>	<u>Langstone Harbour Site of Special Scientific Interest (SSSI)</u> Contamination risk: Low to moderate risk. The site is situated relatively close to the facility, and surface runoff could potentially carry contaminants toward the harbour. However, given the separation distance and the natural barriers (including topography and vegetation), the risk is relatively low, provided the facility adheres to proper containment and spill prevention measures. <u>Farlington Marshes Local Nature Reserve (LNR)</u> Contamination risk: Moderate risk. The proximity of the site means that contamination from surface water runoff or airborne emissions could reach this sensitive environment. Any spills or leaks at the facility could affect water quality and soil integrity within the reserve. Stringent operational controls are essential to minimize the risk. <u>Chichester and Langstone Harbour Ramsar and Special protection Area (SPA)</u> Contamination risk: Low to moderate risk. The risk to the SPA from contamination is moderate, as runoff could potentially carry hazardous materials toward the harbour, affecting water quality and the habitats of protected species. However, given the distance and the presence of natural buffers, the impact is expected to be minimal unless significant contamination occurs. <u>Solent Maritime Special Area of Conservation (SAC)</u> Contamination risk: Moderate risk. While the risk to the SAC is somewhat lower due to its distance from the site, the possibility of contaminants entering the marine environment through surface runoff or groundwater discharge

	remains a concern. The SAC's ecological value could be compromised if water quality is affected by hazardous substances. <u>Solent and Isle of Wight Lagoons SAC</u> Contamination risk: Low risk. The distance from the facility reduces the likelihood of direct contamination, but there is still potential for contaminants to migrate through surface water runoff or groundwater. As with the other sites, the primary concern would be if hazardous substances enter the lagoon ecosystems and affect the sensitive species and habitats. <u>Langstone Harbour RSPB Reserve</u> Contamination risk: Moderate risk. Given the location of the reserve near the facility and its sensitivity to changes in water and air quality, there is a moderate risk that contaminants could impact this site through surface water runoff or airborne emissions. The primary concern would be runoff from the facility carrying hazardous materials into the harbour, which could affect water quality and wildlife. Careful management of surface water drainage and pollution prevention would be critical to mitigate risks to this sensitive area. <u>Portsmouth SSSI</u> Contamination risk: Very low risk. Given the distance and topography, it is unlikely that contamination from the facility would reach this site in significant amounts. However, precautions should still be taken to ensure that no hazardous materials are released into the atmosphere or waterways that could travel to this site.
	Based on the proximity of the statutory sites and the potential contamination pathways from G E Heard & Sons' operations, the risk of significant impacts on these sites is considered to be low to moderate. The most vulnerable

	sites are those closest to the facility, such as Langstone Harbour SSSI, Farlington Marshes LNR, Chichester and Langstone Harbour Ramsar and SPA, and the Langstone Harbour RSPB Reserve, where surface water runoff and airborne emissions could potentially cause contamination. However, with the implementation of robust mitigation measures, such as effective spill containment, runoff management, and air quality controls, the likelihood of significant impact can be minimized. These mitigation methods are already in practice at the site. It is recommended that regular environmental monitoring and audits be conducted to ensure compliance with environmental safety standards and to track any potential impacts on nearby statutory sites.
Hazard Identification	
<i>Summary of Survey Findings</i>	<i>Potential Contaminants and Hazards</i> Perfumes, PAH's, TPH's, nitrates, solvents and paints. <i>Potential Environmental Risks</i> • Air quality and volatile organic compounds • Water contamination • Soil contamination • Biodiversity Loss <i>Potential Pathways</i> <u>Soils</u> Vertical and lateral migration through permeable underlying strata can act as a pathway for contamination if hazardous substances, such as chemicals, oils, or solvents, leach into the ground. In the case of the facility, this could

	occur during the drum reconditioning process if any spills or leaks happen. Contaminants can then potentially spread through the soil, affecting local ecosystems or reaching groundwater. However, the presence of hardstanding (impermeable surfaces) across the site reduces the likelihood of contamination migrating through the soil horizontally or vertically, helping to contain any potential pollutants. <u>Water levels (groundwater infiltration)</u> Groundwater infiltration refers to the process by which water from rainfall or surface water seeps into the ground and can carry contaminants into the water table. If hazardous materials, like chemicals or oils, were to spill and infiltrate the ground, they could potentially contaminate the groundwater, which may affect nearby water sources. Given the underlying geology of Chalk and permeable River Terrace Deposits, water movement in the ground could facilitate the spread of contaminants if not properly contained. <u>Surface runoff</u> Surface runoff occurs when rainwater flows across the ground, potentially carrying pollutants along with it. Since the site has hardstanding, which prevents water from infiltrating the ground, any rainfall or water used in the facility's operations could flow across the surface, picking up contaminants such as chemicals or oils. The runoff could then migrate offsite via confluence pathways, posing a potential risk to the local environment. To mitigate this, measures such as bunding or effective drainage systems have been implemented to control the movement of water and prevent contamination from spreading. However, during periods of heavy rainfall or flooding, the volume of surface runoff could increase significantly, exacerbating the spread of contaminants and increasing the likelihood of pollution reaching surrounding areas. The flood risk could amplify this, especially if the runoff is not effectively managed, potentially leading to contamination of nearby water bodies or designated sites.
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Conceptual Site Method

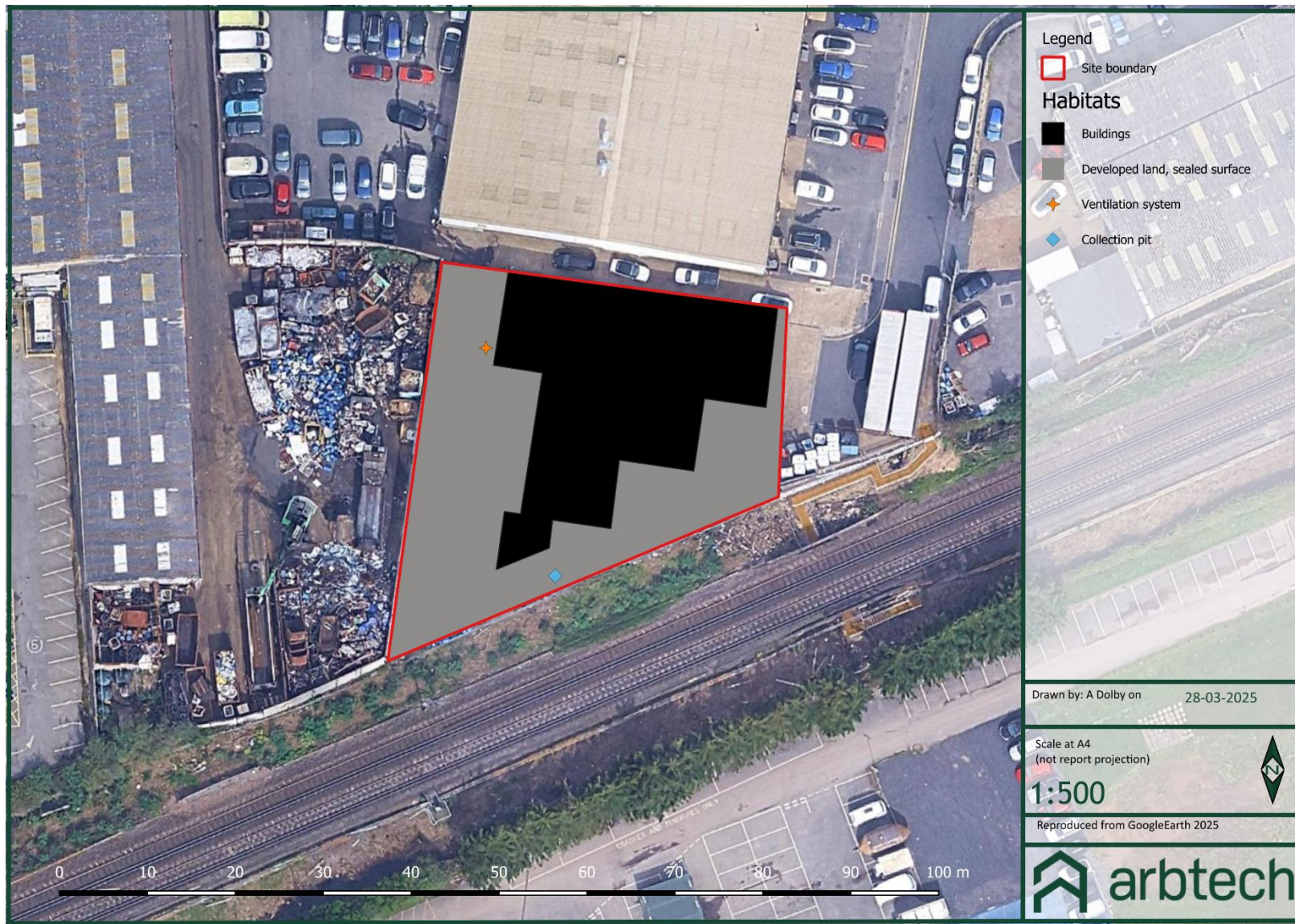
Table 1. Potential Contamination sources

Contamination Sources			
Ref.	Source	Location	Potential Associated Contaminants of Concern
Source 1	Storage location and collecting pit	Onsite	PFAS, PAHs, TPHs, VOC, SVOC
Source 2	Part Worn Tyres 4 U	Adjacent to northern and western boundary	PFAS, PAHs, TPHs, VOC, SVOC
Source 3	Train track	~6.6m south	Heavy metals, asbestos
Source 4	1st Castle Motorcycle Training	~26m south	PAHs, TPHs, VOC, SVOC, Heavy metals

Current MitigationSpills and leaks

	• Hardstanding surface preventing any potential contamination, if present to migrate vertically or laterally • Spill kit stations are positioned strategically around the facility • Staff is trained for spill response procedures and drills are completed regularly • Maintaining the site bunding along the southern and western site boundaries <u>Chemical storage and handling</u> • Designated storage area on site, with ventilated areas with bunding • Regular inspections and maintenance of storage facilities • Training staff on proper handling and storage procedures
<i>Foreseen Impacts</i>	The reconditioning of drums containing hazardous contaminants, such as PAHs, TPHs, nitrates, solvents (paints), poses several environmental risks, but these risks can be effectively mitigated through the implementation of comprehensive control measures. There is hardstanding across the site preventing any potential migration of contamination vertically and laterally through ground water. The facility will adopt best practices for waste management, spill prevention, and air and water quality control to ensure that all activities comply with environmental regulations and minimize adverse impacts on local habitats. The site is currently adopting best practice measure and complying with legislation. The proposed permit application will provide the necessary framework to continue safely recondition drums while protecting the environment.
<i>Recommendations</i>	No further recommendations, the site is showing currently showing suitable mitigation measures for the potential contaminants onsite.

Appendix 1: Survey/Habitat map



Appendix 2: Location map



Appendix 3: Designated Site location map



Appendix 4: Photos

Photo 1: Showing the barrel storage onsite.



Photo 2: Showing the drainage system onsite, specifically the collection pit.



Photo 3: Showing the hardstanding lip around the site.



Photo 4: Showing the storage within the northern building.



Photo 5: Showing the ventilation system for the building, which is where the drums are being reconditioned.



Photo 6: Showing the adjacent habitats, including scrub, line of trees and train tracks.



Photo 7: Showing the adjacent scrub.



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Draft	0.1	Anna Dolby, BSc (Hons), Consultant Ecologist	01/04/2025
Review	0.2	Fay Brotherhood BSc (Hons) MSc, Senior Ecologist	08/04/2025
Review	1.0	Charlotte Radiven BSc (Hons) MEnvSi Geo-Environmental Manager	10/04/2025
Final	1.2	Anna Dolby, BSc (Hons), Consultant Ecologist	10/04/2025