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Legend

Site Boundary

W Pond ID

TCA2: Pond Distance to Temporary Construction Area 2

PDZ: Pond Distance to Production Development Zone

Rev	Description	By	CB	Date



MAKING
COMPLEX
EASY

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Client

LanzaTech UK Limited

Project

Project Dragon SAF
Production Facility

Title

Waterbody Location Plan

Status

ISSUE

Project Number

ECO02340

Figure Number

9

Drawn By

HM

Scale @ A3

1:6,000

PM/Checked By

TO

Date Created

AUG 2023

Rev

1

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- Legend
- Site Boundary
 - Mammal Path
 - Vegetation - Open Structured
 - Vegetation - Dense
 - Seasonal Waterbodies
 - Reedbed

Rev	Description	By	CB	Date



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Project Project Dragon SAF
 Production Facility

Title Otter Potential Plan

Status	Drawn By	PM/Checked By
ISSUE	OW	PT
Project Number	Scale @ A3	Date Created
ECO02340	1:3,850	SEP 2023
Figure Number		Rev
8		1

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Appendix A PRA Results

Table A1. Summary of the findings of the Preliminary (Bat) Roost Assessment of Buildings

Building Number	Building Description and Potential Roost Features	Overall Suitability	Recommended further surveys	Number of surveyors required for emergence/re-entry surveys
B1	Tall abandoned industrial building constructed from brick with a shallow pitched roof of corrugated sheet mineral. Glass in upper portion but some panes broken. Main building has multiple access points.	Low	One emergence / re-entry survey	4 surveyors
B2	Single storey, flat roof, brick office building in use. Gaps in the brickwork of the SW side were examined with an endoscope and ruled out for bat potential.	Negligible	None	N/A
B3A-D	Series of portacabins, in use. No features apart from a round hole into roof but thick with cobwebs. 3D has a flap of roofing felt at the edge but unlikely to be suitable.	Negligible	None	N/A
B4	Large green corrugated metal shed, in use.	Negligible	None	N/A
B5	Brick single storey industrial building with a blue door, possibly in use. Gap behind sheet cladding near to door and apparently deep missing mortar crevices in brickwork of the NE side.	Low	One emergence / re-entry survey	1 surveyor
B6	Portacabin modular structure in use. Small potential gap at the barge board of the SW side but all elevations are extremely well lit with several lamps. Surrounded by hardstanding, no vegetation.	Negligible	None	N/A
B7	Stacked container buildings sheet metal walls and roof, in use.	Negligible	None	N/A
B8	In use by JES Group Ltd. Large corrugated metal shed with side extension. Further stacked container buildings along its side. Very well lit with bright lamps at SW end, no vegetation or cover.	Negligible	None	N/A
B8A	Building not showing on aerial photography. Small, corrugated metal garage in use.	Negligible	None	N/A
B9	In use by Davies Crane Hire, corrugated metal shed structure with bright lighting.	Negligible	None	N/A
B10	Stacked container buildings in use. Lighting from 9 spills onto this area.	Negligible	None	N/A
B11	In use by MII Total Access. Single storey corrugated metal shed. Bright lighting at corner, front and NE side. No vegetation or cover.	Negligible	None	N/A
B12	Old metal shed, no longer in use, very corroded, holes in walls, but cobwebs across them.	Negligible	None	N/A
B13	Small brick sub-station (Margam Sub-station building). Presumably in irregular use. Some damaged wood to the rear with no bat access, but a crevice behind the barge board along the side and front.	Low	One emergence / re-entry survey	2 surveyors
B14	Green corrugated container building complex office in use by MII Total Access with two blue extensions.	Negligible	None	N/A
B15	Container building, in use.	Negligible	None	N/A

REPORT

Building Number	Building Description and Potential Roost Features	Overall Suitability	Recommended further surveys	Number of surveyors required for emergence/re-entry surveys
B16	Green corrugated shed in use with external lighting to the SE end.	Negligible	None	N/A
B17	Disused green corrugated metal shed with corrugated mineral roof. Plenty of access points around gable end. No lighting on this building and vegetation present.	Low	One emergence / re-entry survey	2 surveyors
B18	Open structure made of scaffold for storing scaffold. Yard very well lit.	Negligible	None	N/A
B19	Grey portacabin with no features.	Negligible	None	N/A

Appendix B Building Descriptions and Photos.

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 1	
Low Tall abandoned industrial building constructed from brick with a shallow pitched roof of corrugated sheet mineral. Glass in upper portion but some panes broken. Main building has multiple access points. NW side single storey brick addition with glass in upper portion of walls, door propped open. Small crevices on external brick corner where roof joins wall. Internally shallow tunnel under the floor with metal covers. Crevice in internal wall at 3-4m. SW side corrugated extension has a small gap along roof edge. Brick area with concrete roof has gaps along edge of the roof. Internally dark room with no features or signs of bats. NE brick extension has a gap along wall above roof join to wall. Crack in the brickwork. Street lighting between building 1 & 2 and NW side.	
	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Feature Description	Photograph
Potential feature above flat roof	
Potential feature in brick side building	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 2	
Negligible Single storey, flat roof, brick office building in use. Gaps in the brickwork of the southwest side were examined with an endoscope and ruled out for bat potential.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 3A-D	
Negligible Series of portacabins, in use. No features apart from a round hole into roof but thick with cobwebs. 3D has a flap of roofing felt at the edge but unlikely to be suitable.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 4	
Negligible Large green corrugated metal shed, in use. Bright lighting on SW side.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 5	
Low Brick single storey industrial building with a blue door, possibly in use. Gap behind sheet cladding near to door and apparently deep missing mortar crevices in brickwork of the NE side.	
	
Feature Description	Photograph
Low bat roost potential in cladding and missing brick mortar and hole in brickwork	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 6	
Negligible Portacabin modular structure in use. Small potential gap at the barge board of the SW side but all elevations are extremely well lit with several lamps. Surrounded by hardstanding, no vegetation.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 7	
Negligible Stacked container buildings sheet metal walls and roof, in use	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 8	
Negligible In use by JES Group Ltd. Large corrugated metal shed with side extension. Further stacked container buildings along its side. Very well lit with bright lamps at SW end, no vegetation or cover.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 8A	
Negligible Building not showing on aerial photography. Small, corrugated metal garage in use.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 9	
Negligible In use by Davies Crane Hire, corrugated metal shed structure with bright lighting	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 10	
Negligible Stacked container buildings in use. Lighting from 9 spills onto this area.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 11	
Negligible In use by MII Total Access. Single storey corrugated metal shed (grey/green). Bright lighting at corner, front and NE side. No vegetation or cover	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 12	
Negligible Old metal shed, no longer in use, very corroded, holes in walls, but cobwebs across them.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 13	
Low Small brick sub-station (Margam Sub-station building). Presumably in irregular use. Some damaged wood to the rear with no bat access, but a crevice behind the barge board along the side and front.	
	
Feature Description	Photograph
Potential gap in roof	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 14	
Negligible Green corrugated container building complex office in use by MII Total Access with two blue extensions.	
No image available	
Feature Description	Photograph
No features	
Building 15	
Negligible Container building, in use.	
No image available	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 16	
Negligible Green corrugated shed in use with external lighting to the SE end.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 17	
Low Disused green corrugated metal shed with corrugated mineral roof. Plenty of access points around gable end. No lighting on this building and vegetation present.	
	
Feature Description	Photograph
No features	

REPORT

Table 1 – Preliminary Roost Assessment (PRA) conducted on 25/07/2023	
Building 18	
Negligible Open structure made of scaffold for storing scaffold. Yard very well lit.	
	
Feature Description	Photograph
No features	
Building 19	
Negligible Grey portacabin with no features.	
No image available	
Feature Description	Photograph
No features	

Appendix C Waterbody Photos and Descriptions

Pond ID	Photo	Description
W1		Standing surface water in raw materials storage area. Permanence: Temporary pooling during heavy rainfall. Water quality: Low and it is highly trafficked area. Depth in winter: 2-5cm maximum depth
W2		As above, standing surface water in raw materials storage area. Permanence: Less transient than W1 but is not present all year round Water quality: contaminated with iron ore stocks . Depth in winter: 2-5cm maximum

REPORT

Pond ID	Photo	Description
W3	N/A	Standing surface water in raw materials storage area. Highly trafficked area meaning that it was not possible to get a photo Permanence: equivalent to W1 Water quality: similar water quality to W1 and W2. Depth: 2-5cm maximum
W4		Forms part of the site drainage and is pumped into sump 1 near the sinter plant, predominantly formed from rainwater and run-off from the blast-furnace slurry stocking area. There is a significant barrier to the migration of any species from the target site. The sinter plant blocks access along with very steep embankments to the north of the plant. Permanence: Will hold water throughout the year. Water quality: likely to be poor Depth: 1m maximum

Appendix C

Bryophyte Assessment



Bryophyte survey and assessment of land at Port Talbot Docks



Authored by: Dr Des Callaghan

Date: 19 October 2022

Disclaimer

This Report was completed by the author on the basis of an agreed scope of works and under terms and conditions agreed with the Client. I confirm that in preparing this Report I have exercised all reasonable skill and care. The author accepts no responsibility to any parties whatsoever for any matters arising outside the agreed scope of works. This Report is issued in confidence to the Client and the author has no responsibility to any third parties to whom this Report may be circulated, in part or in full, and any such parties rely on the contents of the Report solely at their own risk.

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INTRODUCTION

All work reported here has been undertaken by Dr Des Callaghan (Bryophyte Surveys Ltd), a professional consultant bryologist and an expert on the bryophyte flora of Britain. The work was commissioned by RPS, in relation to the proposed development of land at Port Talbot Docks. The purpose of this report is:

- To identify and describe all potentially significant effects on bryophytes associated with the proposed development;
- To set out the mitigation measures required to ensure compliance with nature conservation legislation as it relates to bryophytes and to address any potentially significant effects; and
- To provide an assessment of the significance of any residual effects.

LEGISLATION

The below provides an overview of legislation that is specifically relevant to the conservation of bryophytes. It does not include any mention of more general nature conservation policy and legislation.

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora ('the Habitats Directive')

No bryophytes are specially protected under Annex IV ('European Protected Species'). The only inclusion of bryophytes is under Annex II, which includes five species (see Appendix 1). For these, signatories are required to contribute to a coherent European ecological network of protected sites by designating a selection of their sites as Special Areas of Conservation (SACs).

The Conservation of Habitats and Species Regulations 2017 (as amended)

This piece of legislation transposes into domestic law the European Habitats Directive and European Birds Directive. Besides the requirements mentioned above under the Habitats Directive, there are no additional measures for the conservation of bryophytes.

The Natural Environment and Rural Communities Act 2006 ('the NERC Act')

Section 41 (S41) of the NERC Act requires the Secretary of State to publish a list of species and habitats of principal importance for conserving biodiversity, which includes 79 bryophyte species (see Appendix 1). The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act, to have regard to the conservation of biodiversity when carrying out their normal functions.

The Wildlife and Countryside Act (WCA) 1981

The Act makes it an offence (subject to exceptions) to intentionally pick, uproot or destroy any wild plant listed in Schedule 8, which includes 37 bryophyte species (see Appendix 1).

METHOD

Scope of the assessment

The scope of the assessment is limited to bryophytes (mosses, liverworts and hornworts) within the area of land that would be impacted by the proposed development (Figure 1).

Desk study

A desk study undertook a review of all bryophyte records from the local area held on the NBN Gateway and within the national bryophyte recording database of The British Bryological Society.

Field survey

Fieldwork was undertaken during 10–11 October 2022, in favourable weather conditions. The survey area was split into five areas (Figure 1) and each was searched thoroughly for bryophytes, with an inventory made of all species found. Small samples of critical species were collected for determination by microscopy.

Assessment

Important bryophyte features

Legally protected species

Bryophytes with special legal protection include only those listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) (see Appendix 1). No bryophytes are legally protected via Annex IV of the EC Habitats Directive.

Species of conservation interest

Bryophyte species of conservation interest are considered to be any of the following:

- Species listed on Annex II of Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora ('The Habitats Directive').
- Species listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended).
- Species listed on Section 41 of The Natural Environment and Rural Communities Act 2006 (as amended).
- Species listed as nationally threatened on the UK Red List (Critically Endangered, Endangered or Vulnerable) by Callaghan (in press).
- Nationally Rare species, recorded from ≤ 15 hectads (10 km grid squares) in Britain during 1970-2013 (Pescott 2016).
- Nationally Scarce species, recorded from 16-100 hectads (10 km grid squares) in Britain during 1970-2013 (Pescott 2016).

Assemblages of conservation interest

Bryophyte assemblages, i.e. collections of species, of conservation interest are considered to be those which qualify as such under the selection criteria for biological Sites of Special Scientific Interest (SSSIs) (Bosanquet et al. 2018).

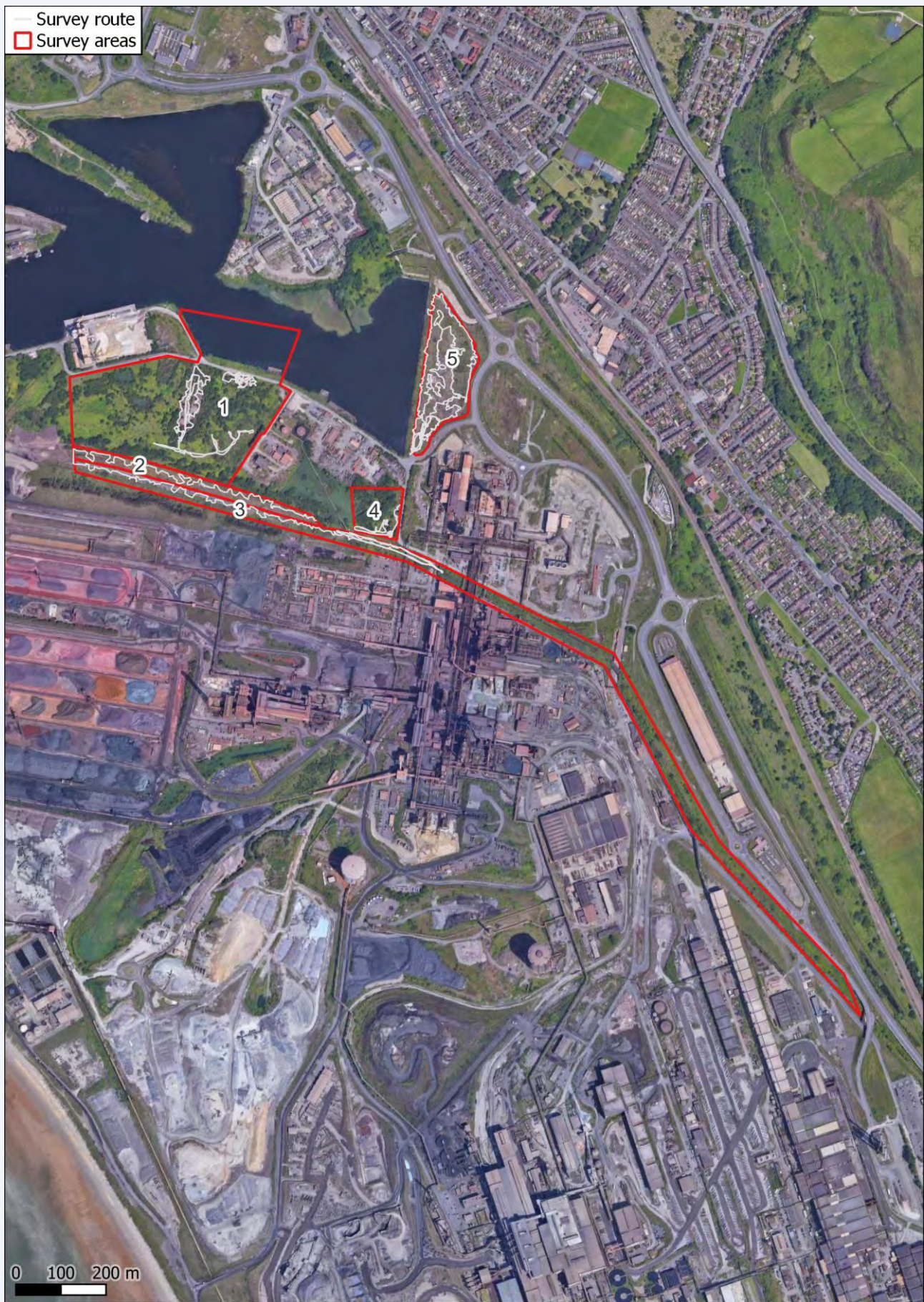


Figure 1. Locations of survey areas and survey routes.

BASELINE CONDITIONS

Previous bryophyte records

There are various bryophyte records collected previously from Port Talbot Docks, but all are frequent or common species and there are no records of any species of conservation interest.

Survey constraints

All habitat of potential interest for bryophytes was accessed and surveyed thoroughly. Significant areas of land in some areas could not be accessed due to dense Japanese Knotweed or scrub, as shown by the survey routes in Figure 1, but such habitat contained very few bryophytes, including a notable absence of epiphytes.

Species composition

A total of 50 bryophytes was found across all of the survey areas, including 48 mosses and two liverworts (Appendix 2). All are frequent or common species in Britain.

Survey Area 1

The area comprises a complex mosaic of willow scrub, bramble scrub, grassland, stands of Japanese Knotweed and sparsely vegetated ground (Figure 2). Some of the grassland in the south of the area, around SS76448857, approximates dune grassland, having developed on a sandy substrate. Access to much of the area was not possible due to dense scrub. Bryophytes are almost entirely limited to the areas of sparsely vegetated ground and grassland on sandy substrates, all of which were accessed and surveyed in detail. Epiphytes within the scrub were very poorly developed and almost all trees were completely devoid of bryophytes. A total of 44 species were recorded (Appendix 2). The community of sparsely vegetated ground, including derelict concrete padding, was dominated by common species such as *Didymodon fallax*, *Cratoneuron filicinum*, *Homalothecium lutescens*, *Schistidium crassipilum*, *Streblotrichum convolutum* and *Syntrichia ruralis*. The 'dune grassland' contained no wet depressions and the bryophytes included a narrow range of common species, such as *Homalothecium lutescens* and *Syntrichia ruralis*. *Calliergonella cuspidata* was locally abundant, including within the damper areas of grassland. No species of conservation interest were found.



Figure 2. View across part of Survey Area 1. SS76438862.

Survey Area 2

The area comprises a derelict railway sidings and contains a mosaic of dry grassland and sparsely vegetated ground. The bryophyte flora includes a narrow range of common species, with locally abundant *Calliergonella cuspidata*, *Homalothecium lutescens*, *Hypnum cupressiforme* var. *lacunosum*, *Streblotrichum convolutum* and *Syntrichia ruralis*. A total of 22 species were recorded (Appendix 2), none of which are of conservation interest.

Survey Area 3

The area comprises a derelict railway line, with a mosaic of scattered scrub, dry grassland and sparsely vegetated ground (Figure 3). A large part of the area could not be accessed due to dense *Buddleja* scrub. The bryophytes of the grassland and sparsely vegetated ground, including the concrete railway sleepers, comprised a narrow range of common species, including frequent *Calliergonella cuspidata*, *Grimmia pulvinata*, *Homalothecium lutescens*, *Schistidium crassipilum*, *Streblotrichum convolutum* and *Syntrichia ruralis*. The scrub contained very few epiphytes, largely limited to *Bryum capillare* and *Orthotrichum diaphanum*. A total of 19 species were recorded (Appendix 2), none of conservation interest.



Figure 3. View across part of Survey Area 3. SS76888836.

Survey Area 4

The area comprises a mosaic of dense willow scrub, bramble scrub, stands of Japanese Knotweed, *Phragmites* fen, grassland and some areas of sparsely vegetated ground, including derelict concrete padding. A large part of the area could not be accessed due to dense scrub. The bryophytes of the grassland included a very small range of common species, dominated by *Calliergonella cuspidata* and *Pseudoscleropodium purum*. The bryophytes of the sparsely vegetated ground comprised a range of common species, including frequent *Didymodon fallax*, *Schistidium crassipilum*, *Streblotrichum convolutum* and *Syntrichia ruralis*. A total of 17 species were recorded (Appendix 2), none of conservation interest.

Survey Area 5

The area comprises a relatively large area of open ground, including a mosaic of grassland and sparsely vegetated ground, with some small stands of scrub (Figure 4). All areas could be accessed for surveying. The bryophytes of the grassland most often included *Calliergonella cuspidata* and *Homalothecium lutescens*, and in some damp depressions there were large stands of *Drepanocladus aduncus*. The bryophytes of the sparsely vegetated ground, including on gravel spoil and concrete padding, comprised a moderately diverse range of frequent to common ruderal species, most often *Ceratodon purpureus*, *Cratoneuron filicinum*, *Didymodon fallax*, *Streblotrichum*

convolutum and *Syntrichia ruralis*. *Bryum archangelicum*, *Didymodon nicholsonii*, *Encalypta streptocarpa* and *Trichostomum crispulum* were also frequent. A total of 36 species were recorded (Appendix 2), none of conservation interest.



Figure 4. View across part of Survey Area 5. SS76968861.

Important bryophyte features

Legally protected species

No legally protected species are present.

Species of conservation interest

No species of conservation interest are present.

Assemblages of conservation interest

No bryophyte assemblages of conservation interest are present.

Summary

No legally protected bryophytes, species of conservation interest or assemblages of conservation interest are present within the survey areas. The ruderal communities of bryophytes, including those on areas of derelict concrete padding and areas where spoil has been spread historically, are moderately diverse, though nothing exceptional. The epiphyte flora is particularly poor,

including a notable absence of common epiphytes such as *Frullania dilatata*, *Lewinskya affinis* and *Ulotia bruchii* from areas of willow scrub, seemingly due to air pollution from local industrial activity.

ASSESSMENT OF EFFECTS AND MITIGATION MEASURES

Potential impacts

Legally protected species

The proposed development will have no effect on any legally protected bryophyte species.

Species of conservation interest

The proposed development will have no effect on any bryophyte species of conservation interest.

Assemblages of conservation interest

The proposed development will have no effect on any bryophyte assemblage of conservation interest.

Mitigation measures

No mitigation measures are considered necessary.

Significance of residual effects

There will be no significant adverse residual effects from proposed works on any legally protected bryophyte, species of conservation interest, or assemblage of conservation interest.

CONCLUSIONS

- The present report provides a comprehensive bryophyte survey and assessment of land at Port Talbot Docks.
- No species of conservation interest have previously been recorded within Port Talbot Docks.
- A total of 50 species of bryophytes were found during the present survey, including 48 mosses and two liverworts.
- No legally protected bryophytes, species of conservation interest or assemblages of conservation interest are present.
- No mitigation measures are considered necessary.
- There will be no significant adverse effects from proposed development on any legally protected bryophyte, species of conservation interest, or assemblage of conservation interest.

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APPENDIX 1 – BRYOPHYTE SPECIES LISTED BY LEGISLATION IN ENGLAND

Species	Habitats Directive Annex II	WAC Act S8	NERC Act S41
<i>Acaulon triquetrum</i>		x	x
<i>Adelanthus lindenbergianus</i>		x	
<i>Anomodon longifolius</i>		x	x
<i>Aplodon wormskioldii</i>			x
<i>Atrichum angustatum</i>			x
<i>Bartramia stricta</i>		x	
<i>Bruchia vogesiaca</i>	x		
<i>Bryum calophyllum</i>			x
<i>Bryum cyclophyllum</i>			x
<i>Bryum gemmiparum</i>			x
<i>Bryum knowltonii</i>			x
<i>Bryum marratii</i>			x
<i>Bryum salinum</i>			x
<i>Bryum schleicheri</i>		x	
<i>Bryum warneum</i>			x
<i>Buxbaumia viridis</i>	x	x	
<i>Cephaloziella baumgartneri</i>			x
<i>Cephaloziella calyculata</i>			x
<i>Cephaloziella dentata</i>			x
<i>Cephaloziella integerrima</i>			x
<i>Cephaloziella nicholsonii</i>			x
<i>Ceratodon conicus</i>			x
<i>Cyclodictyon laetevirens</i>		x	x
<i>Dendrocryphaea lamyana</i>		x	x
<i>Dicranum spurium</i>			x
<i>Dicranum undulatum</i>			x
<i>Didymodon cordatus</i>		x	
<i>Didymodon glaucus</i>		x	x
<i>Didymodon tomaculosus</i>			x
<i>Ditrichum cornubicum</i>		x	x
<i>Ditrichum plumbicola</i>			x
<i>Ditrichum subulatum</i>			x
<i>Dumortiera hirsuta</i>			x
<i>Entosthodon pulchellus</i>			x
<i>Ephemerum cohaerens</i>			x
<i>Fissidens curvatus</i>			x
<i>Fissidens serrulatus</i>			x
<i>Fossombronia foveolata</i>			x
<i>Geocalyx graveolens</i>		x	
<i>Grimmia crinita</i>			x
<i>Grimmia elongata</i>			x
<i>Grimmia unicolor</i>		x	
<i>Gymnomitrion apiculatum</i>		x	
<i>Habrodon perpusillus</i>			x
<i>Hamatocaulis vernicosus</i>	x	x	
<i>Homomallium incurvatum</i>			x
<i>Hygrohypnum polare</i>		x	
<i>Hypnum vaucheri</i>		x	
<i>Jamesoniella undulifolia</i>		x	x
<i>Leiocolea rutheana</i>		x	x
<i>Leiocolea rutheana</i> var. <i>laxa</i>		x	x

Species	Habitats Directive Annex II	WAC Act S8	NERC Act S41
<i>Leiocolea rutheana</i> var. <i>rutheana</i>		x	x
<i>Lejeunea mandonii</i>			x
<i>Leptodontium gemmascens</i>			x
<i>Liochlaena lanceolata</i>			x
<i>Lophozia capitata</i>			x
<i>Marsupella profunda</i>	x	x	x
<i>Micromitrium tenerum</i>		x	x
<i>Mielichhoferia mielichhoferiana</i>		x	
<i>Orthodontium gracile</i>			x
<i>Orthotrichum obtusifolium</i>		x	
<i>Orthotrichum pallens</i>			x
<i>Orthotrichum pumilum</i>			x
<i>Pallavicinia lyellii</i>			x
<i>Petalophyllum ralfsii</i>	x	x	x
<i>Philonotis marchica</i>			x
<i>Physcomitrium eurystomum</i>			x
<i>Plagiothecium piliferum</i>		x	
<i>Pseudocalliergon turgescens</i>		x	
<i>Rhynchostegium rotundifolium</i>		x	x
<i>Rhytidiadelphus subpinnatus</i>			x
<i>Riccia bifurca</i>		x	x
<i>Riccia canaliculata</i>			x
<i>Riccia nigrella</i>			x
<i>Saelania glaucescens</i>		x	
<i>Scopelophila cataractae</i>			x
<i>Seligeria carniolica</i>			x
<i>Southbya nigrella</i>		x	x
<i>Sphaerocarpos texanus</i>			x
<i>Sphagnum balticum</i>		x	x
<i>Splachnum vasculosum</i>			x
<i>Telaranea europaea</i>			x
<i>Thamnobryum angustifolium</i>		x	x
<i>Thamnobryum cataractarum</i>			x
<i>Tortula cernua</i>		x	x
<i>Tortula cuneifolia</i>			x
<i>Tortula freibergii</i>			x
<i>Tortula vahlana</i>			x
<i>Tortula wilsonii</i>			x
<i>Weissia condensa</i>			x
<i>Weissia levieri</i>			x
<i>Weissia multicapsularis</i>			x
<i>Weissia squarrosa</i>			x
<i>Weissia sterilis</i>			x
<i>Zygodon forsteri</i>		x	x
<i>Zygodon gracilis</i>		x	x

APPENDIX 2 – SPECIES INVENTORY

The below provides an inventory of bryophytes recorded within the survey areas. Taxonomy follows Blockeel et al. (2021).

CC No	Division	Family	Species	Survey area				
				1	2	3	4	5
L004.01	Marchantiophyta	Lunulariaceae	Lunularia cruciata	x	x			
L013.03	Marchantiophyta	Pelliaceae	Pellia endiviifolia	x				
M010.06	Bryophyta	Polytrichaceae	Polytrichum juniperinum	x				
M014.01	Bryophyta	Encalyptaceae	Encalypta streptocarpa	x	x	x		x
M015.01	Bryophyta	Funariaceae	Funaria hygrometrica	x				
M031.05	Bryophyta	Dicranellaceae	Dicranella varia	x			x	x
M050.01	Bryophyta	Ditrichaceae	Ceratodon purpureus	x	x	x	x	x
M055.02	Bryophyta	Pottiaceae	Trichostomum crispulum	x				x
M067.01	Bryophyta	Pottiaceae	Pseudocrossidium hornschiuchianum	x	x		x	x
M068.01	Bryophyta	Pottiaceae	Bryoerythrophyllum recurvirostrum	x	x	x	x	x
M070.01.a	Bryophyta	Pottiaceae	Streblotrichum convolutum var. convolutum	x	x	x	x	x
M070.01.b	Bryophyta	Pottiaceae	Streblotrichum convolutum var. commutatum	x	x	x		x
M071.01	Bryophyta	Pottiaceae	Barbula unguiculata	x	x		x	x
M072.02	Bryophyta	Pottiaceae	Didymodon ferrugineus				x	
M072.04	Bryophyta	Pottiaceae	Didymodon fallax	x	x		x	x
M072.06	Bryophyta	Pottiaceae	Didymodon luridus	x			x	x
M072.07	Bryophyta	Pottiaceae	Didymodon tophaceus	x				
M072.08	Bryophyta	Pottiaceae	Didymodon nicholsonii	x				x
M072.10	Bryophyta	Pottiaceae	Didymodon insulanus	x	x		x	x
M072.13	Bryophyta	Pottiaceae	Didymodon rigidulus	x	x	x		x
M076.03	Bryophyta	Pottiaceae	Aloina aloides	x				x
M077.10	Bryophyta	Pottiaceae	Tortula muralis	x		x		x
M082.01.a	Bryophyta	Pottiaceae	Syntrichia ruralis var. ruralis	x	x	x	x	x
M082.04.a	Bryophyta	Pottiaceae	Syntrichia montana var. montana					x
M092.17	Bryophyta	Grimmiaceae	Schistidium crassipilum	x	x	x	x	x
M093.16	Bryophyta	Grimmiaceae	Grimmia pulvinata	x	x	x		x
M110.05	Bryophyta	Bryaceae	Bryum argenteum	x		x		x
M110.09	Bryophyta	Bryaceae	Bryum dichotomum	x				x
M110.39	Bryophyta	Bryaceae	Bryum archangelicum	x	x			x
M110.42	Bryophyta	Bryaceae	Bryum capillare	x	x	x		x
M110.48	Bryophyta	Bryaceae	Bryum pseudotriquetrum	x				
M110.52	Bryophyta	Bryaceae	Bryum rubens	x				
M122.07	Bryophyta	Orthotrichaceae	Orthotrichum diaphanum	x		x		
M150.01	Bryophyta	Amblystegiaceae	Cratoneuron filicinum	x		x	x	x
M152.02	Bryophyta	Amblystegiaceae	Campylium stellatum	x				
M157.02	Bryophyta	Amblystegiaceae	Drepanocladus aduncus	x				x
M180.01	Bryophyta	Brachytheciaceae	Pseudoscleropodium purum	x		x	x	x
M183.01	Bryophyta	Brachytheciaceae	Eurhynchium striatum					x
M184.04	Bryophyta	Brachytheciaceae	Rhynchostegium confertum	x				
M188.01	Bryophyta	Brachytheciaceae	Oxyrrhynchium hians	x	x			x
M189.01	Bryophyta	Brachytheciaceae	Kindbergia praelonga	x				x
M191.01	Bryophyta	Brachytheciaceae	Brachythecium albicans	x	x			x
M191.05	Bryophyta	Brachytheciaceae	Brachythecium mildeanum	x				x
M191.06	Bryophyta	Brachytheciaceae	Brachythecium rutabulum	x	x	x	x	x
M195.01	Bryophyta	Brachytheciaceae	Homalothecium sericeum			x		
M195.02	Bryophyta	Brachytheciaceae	Homalothecium lutescens	x	x	x	x	x

CC No	Division	Family	Species	Survey area				
				1	2	3	4	5
M196.01.b	Bryophyta	Hypnaceae	Hypnum cupressiforme var. lacunosum		x			
M201.01	Bryophyta	Pylaisiaceae	Calliergonella cuspidata	x	x	x	x	x
M210.01	Bryophyta	Hylocomiaceae	Rhytidiadelphus squarrosus					x
M218.01	Bryophyta	Cryphaeaceae	Cryphaea heteromalla	x				
Total:				44	22	19	17	36