

Intertissue Biomass Boiler, Briton Ferry

Preliminary Ecological Appraisal

Version 1.0

Prepared for Intertissue Ltd.

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1 Introduction

This document provides a Preliminary Ecological Appraisal (PEA) of a proposed Biomass Boiler at the Sofidel, Briton Ferry paper mill site (the 'Proposed Development'), undertaken for Intertissue Ltd.

The report has been prepared in accordance with professional guidance for PEA (CIEEM, 2017¹), and having regard to the requirements of the local planning authority (Neath Port Talbot Council) set out in their Pre-Application Advice of 26 April 2024.

The purpose of a PEA is set out in CIEEM guidance as follows:

- identify the likely ecological constraints associated with a project;
- identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy';
- identify any additional surveys (*or assessment*) that may be required to inform an Ecological Impact Assessment (EclA); and
- identify the opportunities offered by a project to deliver ecological enhancement.

This report should be read in conjunction with the **Ecological Impact Assessment** (EclA) report, which includes an assessment of any impacts of the Proposed Development and their significance, and the **Green Infrastructure Statement** (Appendix 1 of EclA), which sets out how the project will conform to Welsh Planning Policy for green infrastructure and ecological enhancement.

¹ CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester

2 Scope and Methodology

2.1 Scope of Assessment

Pre-Application Advice

The local planning authority requested the following components of the ecological assessment:

Table 2.1: Required scope - local authority consultation response

Requirement	Response
Provide PEA report identifying the need for any further species surveys	This document includes all necessary elements of a PEA, having regard for the nature, scale and location of the Proposed Development
Results of further surveys presented in an Ecological Impact Assessment (EcIA)	No further surveys identified, but EcIA produced in order to address other potential impacts
Identify ecological impacts which may arise from the Proposed Development.	EcIA assesses potential impacts of Proposed Development
Assess the impacts of air quality changes at sensitive receptors	Air Quality Assessment (AQA) includes dispersion and deposition modelling at sensitive receptors; ecological interpretation of AQA and impact assessment included in EcIA
Consider if a Habitats Regulations Assessment (HRA) is required	EcIA considers whether there is any risk of impacts on European conservation sites or Ramsar sites
Prepare Green Infrastructure Statement to comply with step-wise approach to biodiversity enhancement	Green Infrastructure Statement (GIS) has been produced, setting out enhancement proposals and policy compliance

Scope of PEA

The PEA includes the following elements:

- Data search for statutory and locally designated sites;
- Description of Proposed Development site and context;
- Consideration of requirements for site habitat and protected species surveys;

- Consideration of potential off-site impacts, and requirement for assessment of other impacts (e.g. noise / lighting);
- Consideration of potential ecological enhancement opportunities; and
- Ecological Constraints and Opportunities Plan.

Geographic Scope of Assessment

A 2km radius was used to define the scope of the data search undertaken using Data Map Wales and SEWBRc, and identify sensitive ecological receptors. These included statutory and locally designated conservation sites and ancient woodlands.

Based on the scale and nature of the Proposed Development, a 1.5km screening radius was sufficient to assess emissions to air. The 1.5km radius accords with the screening requirements for Medium Combustion Plants (MCP) of 5-10 MWth size firing woody solid biomass (see EcIA for further details). A 1.5km radius also exceeds the potential Zone of Influence (Zoi) of the development with respect to other potential impacts, such as noise, lighting and human disturbance.

2.2 Methodology

Data Search

The location and boundaries of statutory designated sites were found using the Data Map Wales viewer. Digital boundary shapefiles were also downloaded for use in the ecological constraints plan (Figure 1). Individual SSSI Citations were also downloaded via the NRW Designated Sites Search web page².

A data search for locally designated sites within 2km radius of the Proposed Development was undertaken by South East Wales Biological Records Centre (SEWBRc). This included boundary data and individual site citations; the latter were reviewed to identify reasons for designation, but are not reproduced in this report due to copyright / data supply restrictions.

Description of Proposed Development Site and context

As the Proposed Development is to be located on an area currently occupied by hard standing within an existing industrial facility, a baseline habitat survey was not necessary. In addition, there was no potential for habitats or structures on or near the

² NRW Designated Sites Search. <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land-and-seas/find-protected-areas-of-land-and-sea/?lang=en> (accessed 15/03/2024)

Proposed Development to support protected species, so it was possible to scope out the need for a site-based protected species assessment.

Site context was determined by aerial photograph interpretation; through descriptions of locally designated sites on the SEWBReC data search; and by reference to Natural Resources Wales' Phase 1 Habitat vegetation shapefile data³.

Consideration of potential off-site impacts

The potential for off-site impacts was assessed with reference to the potential impacts of the Proposed Development during construction and operation, including noise, emissions to air and water. At PEA stage an assessment was made of sensitivity of the qualifying features of statutory and locally designated sites to these potential impacts, in terms of (for example) sensitivity of vegetation to air quality impacts, and sensitivity of birds to noise and disturbance impacts. The assessment of ecological impacts and their significance, together with any mitigation requirements, was undertaken at EcIA stage following modelling and assessment of relevant environmental impacts.

Consideration of potential enhancement opportunities

At PEA stage, consideration was given to the potential for ecological enhancement measures, focussed on the blue-line boundary of land within the control of the Applicant. This included reference to the ecological context of the site, including qualifying features of nearby designated sites, and policy requirements for ecological enhancement and Green Infrastructure (GI). As the requirement and scale of enhancement measures would depend on the results of the impact assessment, these were developed further and refined as specific proposals at EcIA stage.

³ originally downloaded from former Lle geo-environmental database, October 2016 - now accessible at https://datamap.gov.wales/maps/new?layer=geonode:nrw_terrestrial_phase_1_habitat_survey#/

3 Description of Proposed Development Site and Context

3.1 Ecological context: statutory designated sites

European conservation sites

The nearest European designated site is Crymlyn Bog Special Area of Conservation (SAC), located 1.87km north-west of the nearest boundary of the Proposed Development, and outside the 1.5km screening radius (see Figure 1).

Sites of Special Scientific Interest (SSSI)

Crymlyn Burrows SSSI

Crymlyn Burrows SSSI is the only statutory designated biological SSSI within the 1.5km screening radius. It is located 0.52km from north-west of the Proposed Development boundary, on the opposite (right) bank of the River Neath, and covers an area of 234.5ha (see Figure 1 for location).

The following notified features are listed in the NRW *Protected Sites Baseline Assessment 2020*. The table below shows the most recent condition assessment, together with its confidence level.

Table 3.1: Notified features and condition assessment

Feature name	Indicative condition	Confidence	Reason for unknown
a ground beetle - <i>Eurynebria complanata</i>	Destroyed	Medium	
Field Wormwood - <i>Artemisia campestris</i>	Unfavourable	Low	
Sand-dune	Unknown	Unknown	Insufficient evidence
Sea Stock - <i>Matthiola sinuata</i>	Unknown	Unknown	Insufficient evidence

Earlswood Road Cutting and Ferryboat Inn Quarries SSSI

This is an earth science SSSI located 1.08km north of the nearest Site boundary. As it is notified for its earth science interest only, it does not require further consideration.

3.2 Ecological context: locally designated sites and ancient woodlands

Locally Designated Sites

There are 15 non-statutory Sites of Importance for Nature Conservation (SINC) designated within the 1.5km screening radius. Their locations and qualifying features are summarised in the table below; locations are shown on Figure 1:

Table 3.2: Sites of Importance for Nature Conservation (SINC)

Site	Distance from Site to nearest boundary	Qualifying features
Baglan Bay	0.13km W	Coastal sand dune; coastal saltmarsh; birds (short-eared owl); vascular plants (sea stock)
Baglan Brownfield Slack	0.97km SE	Coastal sand dune; open mosaic habitat; vascular plants (distant sedge)
Baglan Panhandle	1.36km SE	Coastal sand dune; open mosaic habitat; herptiles (slow-worm significant population); invertebrates (brown-banded carder bee)
Briton Ferry Waste Ground	1.02km NE	Open mosaic habitat on previously developed land; lowland meadow; invertebrates (brown-banded carder bee, small blue)
Brunel Dock Grasslands	0.54km NE	Lowland meadows; invertebrates (long-winged conehead, small blue); vascular plants (wild liquorice)
Brunel Dock Reedbeds	0.91km NE	Reedbeds; birds (Cetti's warbler)
Crymlyn Burrows (east of SSSI)	0.41km NW	Coastal sand dune (with associated slacks, seepages, grassland and scrub)
Earlswood Area	0.91km NW	Native woodlands; scrub communities; lowland meadows; lowland heathland; inland rock outcrop / scree habitats; coastal sand dunes; vascular plants (assemblage)
Earlswood Grasslands	1.43km N	Lowland heathland; lowland dry acid grassland; native woodlands; vascular plants (yellow bartsia)
Fabian Way Wildflower Verge	0.76km NW	Boundaries and linear features Lowland meadows
Jaffa Land Baglan	0.94km E	Vascular plants (Deptford pink, distant sedge, brown sedge)
Marden Park Grassland	0.55km E	Open mosaic habitat; vascular plants (assemblage)
Neath Canal	1.29km N	Standing open waters and canals
Neath Estuary	0.24km NW	Coastal and floodplain grazing marsh; rivers; coastal saltmarsh; intertidal mudflats
The Quays Car Park Bunds	0.52km NE	Lowland meadows; calcareous grassland; invertebrates (small blue, brown-banded carder bee); vascular plants (wild liquorice)
Triangular Pond	0.98km E	Ponds (National Pond Survey High score); vascular plants (Deptford pink)

Ancient Woodland Sites

The nearest parts of three ancient semi-natural woodland sites fall just within the 1.5km screening radius, located 1.36km E, 1.26km and 1.41km NE from the Site's nearest boundary. These form part of a larger number of ancient woodland sites located on elevated ground to the east and north-east of the Site, beyond the M4 road corridor. Further ancient woodlands also occur on elevated ground to the north, beyond Crymlyn Bog.

3.2 Site features and surroundings

Site Description

The Proposed Development would occupy a 0.26ha site within the curtilage of the Sofidel UK plant (see Figure 2, red-line planning application boundary).

The Site currently consists of unvegetated hard-standing. It is located in the south-western part of the wider Sofidel site, with existing buildings to the east, west and north. The internal access road is located to the south, with storage tanks, a small area of amenity grassland and the Sofidel site boundary fence beyond.

Site Surroundings

The wider Sofidel site (Figure 2, blue-line boundary) extends to around 31.8ha in area. The paper manufacturing facility and related structures occupy around 8.9ha, with other developed parts of the site occupied by road and rail access, car and HGV parking, and other ancillary buildings including an office, gatehouse, substation and storage tanks. There is a large area of open grassland in the north of the Site, with several smaller areas, and some peripheral hedge and shrub planting. Other habitats include two attenuation basins; one near the northern boundary of the wider site of around 0.4ha, and a smaller lagoon of around 0.2ha near the southern boundary.

The wider Sofidel site is bounded by the left bank of Neath Estuary (a SINC) to the north, which supports a narrow band of scrub and grassland; Crymlyn Burrows SINC lies beyond on the right bank of the river. Saltmarsh and intertidal mud habitats of Baglan Bay SINC are located to the west of the wider site, with sand dune habitats further west, at least 0.42km beyond the end of the boundary fence.

A stream bounded by scrub and trees runs along the north-eastern boundary of the wider site, while a vegetated bund with immature woodland adjoins the southern boundary. Land to the south and east includes industrial buildings interspersed with open space, including some open mosaic and grassland habitats designated as SINC. There is also a rail siding and access roads, while the M4 motorway is located around 0.35km east of the wider site at its closest boundary.

4 Requirement for additional surveys and assessment

4.1 Habitats

The fact that the Site is small in scale, and is entirely composed of unvegetated hard standing, with no vegetated habitats nearby, means it is not necessary to undertake habitat surveys to inform the ecological impact assessment of the Proposed Development.

4.2 Protected Species

There is a negligible risk of occurrence of protected species on or adjoining the Site. Protected species surveys of the Site and its surroundings are not necessary to inform the ecological impact of the Proposed Development.

4.3 Potential for off-site impacts

A number of potential off-site impacts may require consideration in the EclA. The following table considers these:

Table 4.1: Potential off-site impacts

Impact	Potential for significant effect	Further assessment required?
Emissions to air	Biomass combustion may increase (e.g.) nitrogen deposition rates to sensitive habitats in vicinity (e.g. sand dune, saltmarsh, grassland)	Yes - based on results of Air Quality Assessment (AQA)
Emissions to water	Wider site has surface water management system in place, and Proposed Development Site is not close to adjoining wetlands.	No - potentially subject to conditions to protect water environment
Noise impacts	Nearby SINC sites with avian qualifying features may be sensitive to construction and operational phase noise impacts	Yes - based on results of Noise Assessment
Lighting	Location of Proposed Development within existing industrial site means lighting impacts will be incremental, and unlikely to result in significant change at or beyond wider site boundary	No - potentially subject to conditions to prevent additional light spillage
Human disturbance	Proposed Development will not increase recreational pressure to surrounding habitats, and potential construction phase disturbance will be contained within existing operational facility	No further assessment required

4.4 Requirement for further assessment

Air quality impacts

An air quality assessment (AQA) will be undertaken in accordance with the requirements of the Medium Combustion Plant (MCP) Directive, as transposed to English and Welsh law under Environmental Permitting regulations. This will include consideration of sensitive ecological receptors within 1.5km, including Crymlyn Burrows SSSI. One notified feature, sand dunes, is regarded as sensitive to nitrogen

deposition, with a lower critical load for acid decalcified dunes of 5kg N/ha/yr, and for calcareous dunes of 10kg N/ha/yr. For planning purposes, it is also necessary to consider locally designated sites and ancient woodlands. These also support sensitive qualifying features, including sand dune, saltmarsh, acid and calcareous grassland, and woodland habitats. Open mosaic habitats also contain sensitive acid or calcareous grassland components.

Dispersion and deposition modelling in the AQA will be subject to ecological interpretation in the EcIA of any predicted impacts above the screening threshold (a process contribution >1% of critical load).

Sensitivity to nitrogen deposition and other air quality impacts will be assessed in the EcIA with reference to Air Pollution Information Service (APIS) and other relevant advice. These results will inform the AQA.

Noise impacts

There are some noise-sensitive receptors present in the wider vicinity of the Proposed Development, on SINC sites which have avian qualifying or supporting features.

A key site is Baglan Bay SINC, which has short-eared owl as a qualifying feature, the Site Citation lists a large breeding population of lapwing as a supporting feature. Both species may be vulnerable to noise impacts, either during construction or operational phases. Other proximal SINC sites are both further from the Proposed Development, and do not have noise-sensitive qualifying features. The only other site with an avian qualifying feature is Brunel Dock Reedbeds SINC; Cetti's warbler is subject to special protection through listing on Schedule 1 of the Wildlife and Countryside Act 1981 (although its population in South Wales has expanded significantly as part of a climate-related range expansion in UK), but is not known to be especially noise-sensitive. Brunel Dock Reedbeds is located over 0.9km from the nearest Site boundary, with intervening car parking and industrial land, and it is not necessary to consider it as a noise-sensitive receptor. Consideration of Baglan Bay SINC as a sensitive receptor in the Noise Assessment provides the most precautionary approach, due to its relative proximity and presence of noise-sensitive species.

Sensitivity to noise impacts will be assessed in more detail in the EcIA, and will inform the Noise Assessment.

5 Opportunities for ecological enhancement

Proposed Development Site

The opportunities for ecological enhancement within the Proposed Development Site (i.e. the red-line planning application boundary) are very limited, due to the small size of the development footprint, its location on unvegetated hardstanding, and its immediate context, bounded on three sides by industrial buildings.

It is therefore neither practicable to undertake any on-site enhancement work, nor - because of the immediate context - would any such work contribute meaningfully to ecological networks and green infrastructure in the wider landscape.

Wider site and surroundings

The presence of a number of SINC's in the landscape around the wider Sofidel site provides potential opportunities for ecological enhancement which would integrate with existing ecological networks and green infrastructure. In particular, saltmarsh habitats in Baglan Bay SINC directly adjoin the west side of the site. Although it is not feasible to create saltmarsh or sand dune habitats, the site is also designated for birds, and improving bird habitat (e.g. by provision of nesting or roosting opportunities) may be an option.

To the north of the site, Neath Estuary SINC is designated for a number of estuarine habitats, and there is limited opportunity to directly complement these qualifying features.

The required scope of mitigation and enhancement works are assessed in the EclA, and are informed by the results of the AQA and Noise Assessments. Detailed proposals are set out in the Green Infrastructure Plan (EclA, Appendix 1).

6 Conclusions and Recommendations

The PEA has not identified any on-site ecological constraints to the Proposed Development. Its scale and location within an unvegetated location within an operational manufacturing site means that there will be no loss of habitat or risk of disturbance to protected species.

The wider surroundings of the Site support one biological SSSI and a number of SINC, designated for habitat, botanical, invertebrate and bird interest. The PEA has considered potential indirect ecological impacts on these features as a consequence of the Proposed Development. Further ecological assessment is required of the following potential impacts:

- Emissions to air, and potential effects on sensitive habitats; and
- Noise impacts, and potential effects on birds, particular with respect to Baglan Bay SINC.

These are considered in more detail in the EcIA, based on the results of dispersion and deposition modelling undertaken in the AQA, and noise modelling undertaken in the Noise Assessment.

The EcIA and Green Infrastructure Statement also considers the requirement for any mitigation work to offset any predicted effects, and the requirement for ecological enhancement work in accordance with Welsh planning policy.

Appendix 1: Figures

Fig.1: Ecological Constraints Plan

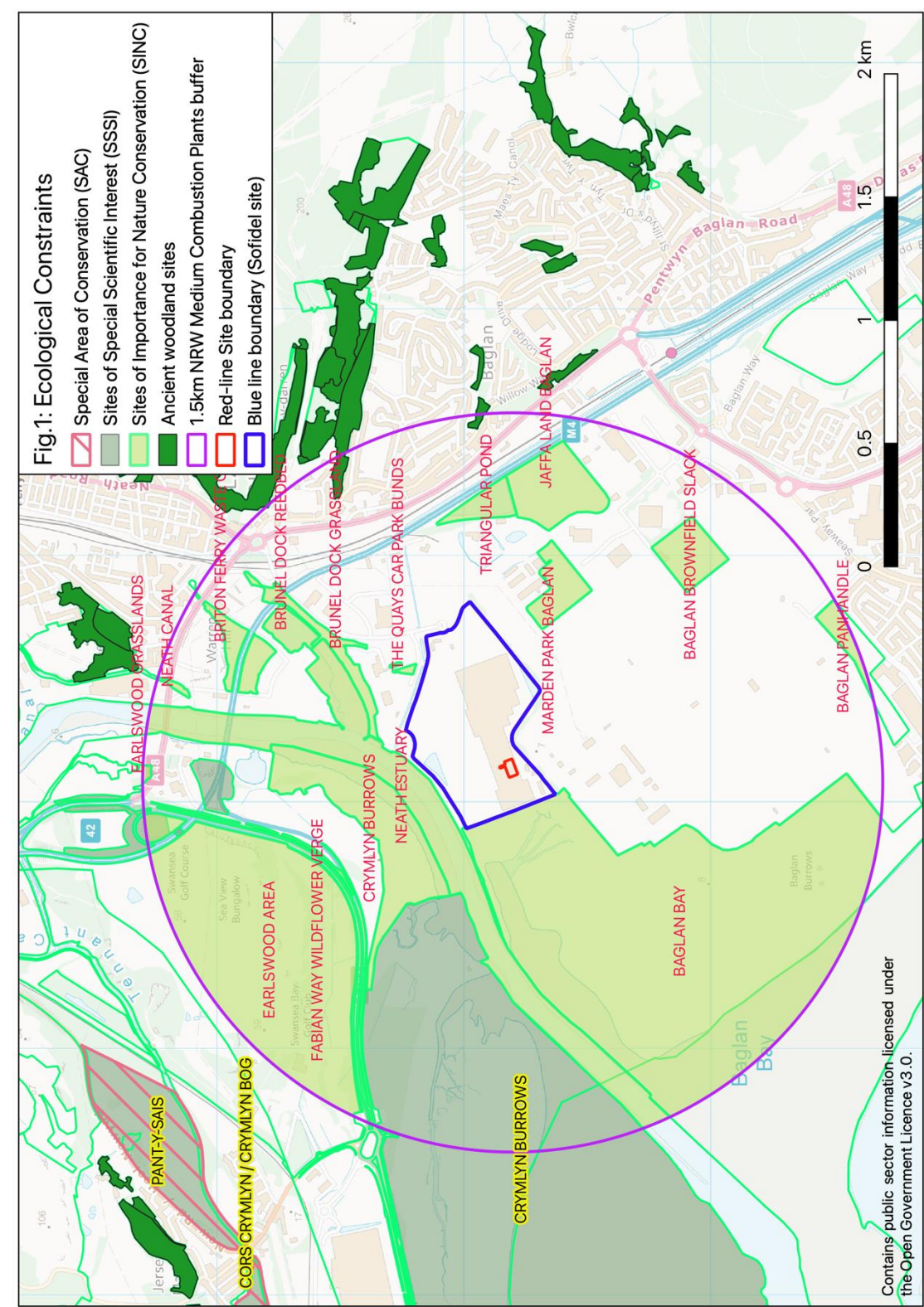


Fig. 2: Proposed Development Site

