



Tata Steel UK Limited

P Fields

Ecological Impact Assessment

2487033 P&C P Fields (Rev 04)

JULY 2024

CONTENTS

1.0 TERRESTRIAL ECOLOGY	1
1.1 Introduction	1
1.2 Legislation and Ecological Guidance	1
1.3 Statement of Authority	2
2.0 SCOPE OF THE ASSESSMENT	3
2.1 General	3
2.2 Effects assessed in Full.....	3
2.3 Effects scoped Out.	3
3.0 ASSESSMENT METHODOLOGY	5
3.1 Study Area	5
3.2 Desk Study	5
3.3 Field Surveys.....	6
3.4 Assessing Ecological Importance.....	7
3.5 Identifying Mitigation and Assessing Residual Effects	1
3.6 Likely Significant Effects.....	2
3.7 Assessment Limitations.....	2
4.0 EXISTING (BASELINE) CONDITIONS.....	3
4.2 Designated Sites and Protected Species Data Search	3
Statutory designated sites	3
Protected Species Records	3
4.3 Ecology Field Surveys	3
Habitats.....	3
Ephemeral and short perennial vegetation (ESPV).....	4
Protected and Notable Species	4
5.0 ECOLOGICAL RECEPTORS ASSESSMENT	6
5.1 IEFs	6
5.2 Embedded Mitigation.....	8
5.3 Tertiary Mitigation	8
6.0 ASSESSMENT OF EFFECTS	10
6.1 Identification of Ecological Importance.....	10
6.2 Identification of Potential Effects	10
6.3 Potential Effect Significance – Construction Effects	1
6.4 Operation Effects.....	2
7.0 SUMMARY OF EFFECTS.....	3
REFERENCES.....	4
FIGURES	5

TABLES

Table 1 Sources of background information	5
Table 2 Ecological Receptor Valuation	1
Table Summary and comparison of CIEEM and EIA based measures of significance of ecological effects.....	1
Table Determination of IEFs to be scoped in for further assessment.....	6
Table Ecological Importance Assessment.....	10

Table Potential effect identification	1
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FIGURES

Figure 1 Phase 1 Habitat Map	5
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1.0 TERRESTRIAL ECOLOGY

1.1 Introduction

- 1.1.1 This report presents the results of a preliminary ecological appraisal (PEA), further Phase 2 ecological surveys including reptile surveys and the results of a Habitats Regulation Assessment. It provides an assessment of the terrestrial ecology effects arising from the proposed concrete hardstanding for industrial use associated with the continued operation of the steelworks (Grid ref SS 77602 86319).
- 1.1.2 Figure 1 shows the site layout figure and the red line boundary.
- 1.1.3 This includes an assessment of the potential impacts, the significance of the effects, the requirements for mitigation and the residual effects, if any.
- 1.1.4 The objectives of this report are to:
- describe the ecological baseline;
 - describe the assessment methodology and significance criteria used in completing the impact assessment;
 - describe the potential effects, including direct, indirect, and cumulative;
 - describe the mitigation measures proposed to address any likely significant effects; and,
 - assess the residual effects remaining following the implementation of mitigation.

1.2 Legislation and Ecological Guidance

- 1.2.1 This assessment has been undertaken in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment (Ref 1) to provide the determining body with clear and concise information about the likely significant ecological effects associated with the proposed development. In addition, the following guidance documents were considered during the survey and assessment process:
- The Habitats Directive 92/43/EEC;
 - The Birds Directive 79/409/EEC;
 - The Birds Directive 79/409/EEC;
 - The European Communities (Birds and Natural Habitats) Regulations 2011 (transposes EU Birds Directive 2009/147/EC and EU Habitats Directive 2009/147/EC, 92/43/EC);
 - EC Wild Birds Directive 1979;
 - Red Data Book (RDB) of British Invertebrates ;
 - Hedgerows Regulations Guidelines 1997;

- The Wildlife and Countryside Act 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979);
- Protection of Badgers Act 1992; and,
- Bat Surveys: Good Practice Guidelines.

1.2.2 This assessment is carried out in accordance with the principles contained in the Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine, 3rd edition.

1.3 **Statement of Authority**

1.3.1 Ecological baseline surveys were conducted by suitably qualified ecologists from RSK Biocensus. This report has been prepared by Alexandra Ellis of RSK Biocensus. Alexandra has a BSc (Hons) in Zoology, an MSc in Biological Recording and is a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). She has over 10 years ecological consultancy experience.

2.0 SCOPE OF THE ASSESSMENT

2.1 General

- 2.1.1 This section provides specific details of the terrestrial ecology methodology applied to the assessment of the Proposed Development and a summary of the general approach to provide appropriate context for the assessment that follows. The scope of assessment considers the impacts of the construction and operation of the proposed development upon those ecological features identified during the review of the desk study and field survey data.
- 2.1.2 To comply with the CIEEM Guidelines for Ecological Impact Assessment (EclA) Ref 1)), this EclA has also identified the Important Ecological Features (IEFs) that are of sufficient importance and likely to be sufficiently affected by the Proposed Development so as to be a material consideration in the planning decision and require a more detailed assessment. The same process also allowed for the identification of those IEFs that are not likely to be significantly affected and so do not require further assessment; that is, they can reasonably be scoped out of the EclA. Where protected species are present and there is the potential for a breach of the legislation, those species are also considered to be IEFs to be included in the EclA.

2.2 Effects assessed in Full.

- 2.2.1 The following effects in relation to construction are assessed:
- degradation of important habitats; and,
 - disturbance of species within and adjacent to the working area due to construction disturbance including noise, lighting and additional vehicular and personnel.
- 2.2.2 The following effects in relation to operation are assessed:
- creation of new habitats and the required time for establishment; and,
 - disturbance of species adjacent to the laydown area / construction compound by impacts such as lighting, air pollution and fire risk.

2.3 Effects scoped Out.

- 2.3.1 Impacts on ecological features associated with site preparation and construction are likely to be insignificant for the following:
- Impacts on the Margam Moors Site of Special Scientific Interest (SSSI), Eglwys Nunydd Reservoir SSSI, Kenfig/ Cynffig Special Area of Conservation (SAC), Kenfig/ Cynffig SSSI, Cefn Cribwr Grasslands / Glaswelltiroedd Cefn Cribwr SAC, Crymlyn Bog Ramsar site, Crymlyn Bog/ Cors Crymlyn SAC in regard to habitats given the distance of these sites from the proposed works;
 - Impacts on great crested newt which are considered absent from the area following surveys completed in 2022 in the wider steel works;

- Impacts on water vole and otter which are considered absent from the area following surveys completed in 2022 in the wider steel works; and
- Impacts on nesting birds given that the direct habitat loss is minimal and that habitat available to birds within the wider site and beyond is of greater value.

2.3.2 As a result of the Proposed Development, potential operational environmental effects relating to ecology are expected to be minimal given that the Proposed Development footprint is small.

3.0 ASSESSMENT METHODOLOGY

3.1 Study Area

- 3.1.1 A range of surveys were employed to accurately record baseline ecological conditions within the application boundary of the Proposed Development and appropriate survey buffers. Terms referred to are as follows:
- 'Survey Area' is defined as the area covered by each survey type at the time of survey; and
 - 'Study Area' is defined as the area of consideration of effects on each species at the time of assessment.
- 3.1.2 Details of the spatial extent of each Survey Area are described in Existing Conditions baseline of this report.

3.2 Desk Study

- 3.2.1 Existing information relating to statutory and non-statutory nature conservation sites, priority habitats and species and legally protected species was gathered from various sources. A background data search (BDS) was undertaken in September 2021 which involved using the sources shown in Table 1 Sources of background information. A search for statutory designated sites within 10km, for non-statutory designated sites and noteworthy species, within 1 km and 2 km respectively, of a much larger original study area (as opposed to the P Fields red line boundary) was undertaken.

Table 1 Sources of background information

Information Obtained	Available From
Protected and noteworthy species-records	SEWBRc - South East Wales Biological Record Centre
Designated site locations and citations	Natural Resources for Wales
Designated site locations and citations	Joint Nature Conservation Committee (JNCC) website
Designations and legal protection of noteworthy species	Joint Nature Conservation Committee (JNCC) website
Ancient Woodland Inventory	Forestry Commission Website
Details of species and habitats listed on the LBAP	Neath Port Talbot Council Local Biodiversity Action Plan https://www.biodiversitywales.org.uk/Neath-Port-Talbot

- 3.2.2 A search was made for international and national statutory designated sites of ecological importance within 2 km of the site boundary including Ramsar sites, Special Areas of Conservation (SAC), Special Protection Areas (SPA)¹, and Sites of Special Scientific Interest (SSSI), including consideration of SSSI risk zones. The search area was extended to 10 km for SAC, SPA and Ramsar sites.
- 3.2.3 A search was also made for non-statutory designated sites (often important in a local context) within 1 km of the site boundary.
- 3.2.4 The BDS also included a search for records within 2 km of the site boundary for noteworthy species, which might be receptors to the proposed development. Species included in the search were:
- European protected species (listed on Schedules 2 and 5 of The Conservation of Habitats and Species Regulations 2017 (as amended));
 - nationally protected species under Schedules 1, 5 and 8 of The Wildlife & Countryside Act 1981 (as amended) and The Protection of Badgers Act 1992;
 - species listed as critically endangered, endangered or vulnerable based on the IUCN Red List Categories and Criteria 2001;
 - all species listed on the RSPB's Birds of Conservation Concern 5 (Stanbury *et al.*, 2021) as red' or 'amber';
 - nationally rare or nationally scarce species;
 - notable² invertebrates; and
 - species of principal importance listed on The Environment (Wales) Act 2016 or are priority species under the Neath Port Talbot Council Local Biodiversity Action Plan.

3.3 Field Surveys

- 3.3.1 To build on the existing baseline, further ecological surveys were undertaken between 2022 and 2024 (Ref 2). These comprised of a preliminary ecological appraisal (PEA) and surveys for the following protected species:
- Reptile presence/absence surveys;
 - Bat activity surveys;
 - Invertebrate surveys;
 - Wintering and Breeding bird surveys;
 - Great crested newt surveys; and,
 - Water vole and otter surveys.

¹ SACs and SPAs were formerly called 'European Sites' and part of the Natura 2000 network; post-'Brexit', they are now considered part of the UK's 'national site network'. Ramsar sites are sites of international importance. Note that SPAs, SACs and Ramsar sites are also underpinned by SSSI designations whose citations/boundaries may be slightly different.

² Appendix B includes a description of 'notable' as used in this context.

3.4 Assessing Ecological Importance

- 3.4.1 The assessment of likely significant environmental effects as a result of the Proposed Development has taken into account the construction and operational phases.
- 3.4.2 The duration of the effect has been assessed as either 'short-term', 'medium-term' or 'long-term'. Short-term is considered to be up to 1 year, medium-term is considered to be between 1 - 10 years and long-term is considered to be greater than 10 years.

I. Determining Sensitivity of Receptor

- 3.4.3 The sensitivity of affected receptors has been considered on a scale of high, medium, low or negligible.

II. Determining the Magnitude of Change

- 3.4.4 The magnitude of change has been considered as the change experienced from the baseline conditions at the sensitive receptor and has been considered on a scale of large, medium, small or negligible.

III. Determining the Level of Effect

- 3.4.5 The first stage of an ecological impact assessment (EcIA) is 'determining value' of ecological features or 'receptors'. CIEEM places the emphasis on identifying different aspects of ecological value including designations, biodiversity value, potential value, secondary or supporting value, social value, economic value, legal protection and multi-functional features. These values are applied to the receptors within a defined geographical context.

Table 2 Ecological Receptor Valuation

Ecological Importance	Qualifying Criteria	Relevant Significance
International	An internationally designated site or candidate/proposed site (Special Protection Area (SPA), potential SPA, Special Area of Conservation (SAC), candidate SAC and/or Ramsar site). A sustainable area of a habitat listed in Annex I of the Habitats Directive or smaller areas of such habitat which are essential to maintain the viability of the larger whole. Sustainable population of an internationally important species or site supporting such a species (or supplying a critical element of their habitat requirement) i.e.: IUCN Red List species that is listed as critically endangered, endangered, or vulnerable; or Species listed in Annex IV of the Habitats Directive; or Sites that support 1% or more of a biogeographic population of a species.	Europe
UK/National	A nationally designated site (Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR)) or a discrete area which meets the selection criteria for national designation (e.g. SSSI selection criteria). An area formally selected by Defra as a Nature Improvement Area. A sustainable area of a priority habitat identified in the UK BAP or of smaller areas of such habitat, which are essential to maintain the viability of the whole. Sustainable population of a nationally important species or site supporting such a species (or supplying a critical element of their habitat requirement) i.e.: • Species listed on Schedules 5 and 8 of the WCA (1981). • UK Red Data Book species. • Other species listed as occurring in 15 or fewer 10 km squares in the UK: or • Sites supporting 1% or more of a national population.	Wales
Regional	Sites/populations which exceed the County-level designations but fall short of SSSI selection guidelines, including the following:	South West Wales

Ecological Importance	Qualifying Criteria	Relevant Significance
	Sustainable areas of key habitat identified in the Regional BAP or smaller areas of such habitat, which are essential to maintain the viability of the whole. • Population of a species listed as being nationally scarce which occurs in 16-100 10 km squares in the UK. • Population of a species listed in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation; or • Sites supporting 1% or more of a regional population.	
County	Some designated sites (including Sites of Importance for Nature Conservation, County Wildlife Sites, Sites of Metropolitan Importance). A viable area of habitat identified in the County BAP. Sustainable populations of the following species: • Species listed in a County/Metropolitan 'red data book' or BAP on account of its rarity/localisation in a county context; or, • Sites supporting 1% or more of a county population.	Neath Port Talbot
Local	Very low importance and rarity, local scale: Areas of habitat considered to appreciably enrich the habitat resource within the ecological study area itself. A small population of a species of conservation concern i.e., listed in the Local BAP.	Study Area plus 1 km radius

- 3.4.6 Where the value is considered less than this it is considered 'negligible'.
- 3.4.7 Following the classification of an effect, a clear statement is made as to whether the effect is 'significant' or 'not significant'. Under the CIEEM guidelines (Ref 1) the significance of the effect on the ecological features has been determined based on the analysis of the factors that characterize the impact. A significant effect is defined as *'an effect that either supports or undermines biodiversity conservation objectives for the ecological feature for biodiversity in general'*.
- 3.4.8 Under CIEEM guidelines and approach, significant effects are identified with regard to an appropriate geographical scale, using the following terms:
- Significant at the international level;
 - Significant at the national level;
 - Significant at the regional level;
 - Significant at the county level;
 - Significant at the local level; and,
 - not significant.
- 3.4.9 The standard levels of significance defined in the CIEEM guidelines (Ref 1) are set out in the below Table 3 alongside the equivalent definitions of effect used in the standard Environmental Impact Assessment (EIA) methodology.

Table 3 Summary and comparison of CIEEM and EIA based measures of significance of ecological effects

Significance following the CIEEM guidelines	Equivalent effect categories and significance definitions following the standard EIA methodology followed elsewhere in this report
Significant at the international level	Major
Significant at the national level	Major
Significant at the regional level	Moderate
Significant at the county level	Moderate
Significant at the local level	Minor
Not significant	Negligible

3.5 Identifying Mitigation and Assessing Residual Effects

- 3.5.1 The terms mitigation, compensation and enhancement are defined here as follows:

- Mitigation is used to refer to measures to avoid, reduce or remedy a specific negative impact in situ. Mitigation is relevant for negative impacts assessed as being potentially significant (before mitigation) or where required to ensure compliance with legislation;
- Compensation is used to refer to measures proposed in relation to specific negative impacts but where it is not possible to fully mitigate for negative impacts in situ. Compensation is relevant for negative impacts assessed as being significant or where required to ensure compliance with legislation; and,
- Enhancement is used to refer to measures that do not remedy the significant negative impacts but redress the overall balance of negative impact by creating other positive ecological impacts. Regardless of any negative impacts, enhancements are increasingly used to provide net ecological gain, this being a presumption of many planning policies.

3.6 Likely Significant Effects

3.6.1 Potential impacts on ecological features associated with site preparation and construction include:

- Impacts on SAC, SPA and Ramsar given the proximity of these sites to the Proposed Development within 10km.
- Impacts on SSSIs given the close proximity of these sites to the Proposed Development within 2km.
- Permanent loss of a small amount of habitat (vegetation clearance and habitat change) within the working area due to ground works and building of the battery storage containers. This may include effects on other neutral grassland, tall herb and scrub communities and the species which utilise these habitats present onsite.
- Temporary and permanent displacement of species from within the construction working area including reptiles, bats and ground nesting birds.
- Disturbance of species adjacent and within the working area due to construction noise, vibration, lighting and increased site personnel.
- Environmental incidents and accidents (spillages, pollution and fire risk) which may affect protected species and adjacent habitats.

3.7 Assessment Limitations

3.7.1 Surveys were undertaken at the appropriate time of year. However, all ecological surveys can only provide a snapshot of presence or activity in a given area. Based on the findings of the surveys, and the habitats present, the data collected during the field surveys are considered sufficient (and robust enough) to inform this EclA.

4.0 EXISTING (BASELINE) CONDITIONS

- 4.1.1 The sections below provide information on statutory designations and the survey results undertaken. For each species recorded, it is also determined if they can be reasonably scoped out of the assessment at this stage due to lack of likely significant effects.

4.2 Designated Sites and Protected Species Data Search

Statutory designated sites

- 4.2.1 There are nine statutory designated sites within 10 km of the site boundary:
- Margam Moors SSSI;
 - Eglwys Nynydd Reservoir SSSI;
 - Kenfig/ Cynffig SAC and SSSI;
 - Kenfig Pool and Dunes National Nature Reserve and Local Nature Reserve;
 - Cefn Cribwr Grasslands / Glaswelltiroedd Cefn Cribwr SAC; and
 - Crymlyn Bog Ramsar site and SAC;
- 4.2.2 There are three non-statutory designated sites within 1km of the Proposed Development. None of these are directly within the footprint of the Proposed Development. The closest site is the Neth Port Talbot Watercourses Site of Interest for Nature Conservation (SINC) which is 28m East of the Proposed Development.

Protected Species Records

- 4.2.3 At least 363 noteworthy species are recorded from places within 2 km of the site boundary. Noteworthy species include species of principal importance that are listed under Section 7 of The Environment (Wales) Act 2016.
- 4.2.4 Of these, five are amphibians, four are reptiles, 152 are birds, two are fish, 125 are invertebrates, at least 27 are mammals (of these, 14 are bats), 44 are plants, one alga, three bryophytes.

4.3 Ecology Field Surveys

Habitats

- 4.3.1 The survey area comprises the following habitat types; bare ground, hardstanding, scrub and ephemeral short perennial vegetation. A Phase 1 habitat map is provided as Figure 1.
- 4.3.2 There are no plant species from the habitats recorded on the site that are critically endangered, endangered, or vulnerable on the IUCN red list, additionally, no invasive non-native species were identified on site.

- 4.3.3 Collectively the mosaic of habitats present within the steel works (grasslands, ephemeral short perennial vegetation in addition to the areas of bare loose substrate) would be identified as open mosaic habitat on previously developed land, a habitat of principal importance in Wales, listed under Section 7 of the Environment (Wales) Act. Due to the nutrient poor status of the substrate on which vegetation has established the flora is relatively diverse and species rich. A short summary for the habitat type is given below:

Ephemeral and short perennial vegetation (ESPV)

- 4.3.4 This vegetation has become established on substrate such as railway ballast and areas where coke fuel ash and furnace slag has been spread. Due to the industrial operations the continued movements of such substrate across the site ensures this vegetation is continually being kick – started as new plants colonize bare substrate. Due to the nutrient poor status of the substrate and its free draining nature, a vegetation community comprising annual plants, ruderal weeds and bryophytes and lichens has developed. In places this vegetation is species rich.
- 4.3.5 Where plants have had time to establish, and no fresh spoil has been added vegetation is undergoing succession to neutral grassland and scrub.

Scrub

- 4.3.6 Dominated by Butterfly-bush (*Buddleja davidii*), Willow (*Salix* sp.), Elder (*Sambucus nigra*) and Bramble. The majority of the scrub is 3-4m high and quite dense. This is an area which has undergone succession from the Ephemeral and short perennial vegetation present in the wider area.

Protected and Notable Species

Invertebrates

- 4.3.7 The BDS returned records of 125 notable invertebrate species within 2 km of the site, indicating the presence of locations within the local area that are rich with invertebrate species, including many scarce species.
- 4.3.8 The Site has habitats present that have the potential to support an assemblage of invertebrates. However, the habitat loss due to the Proposed Development is small and there is more valuable habitat adjacent to the Proposed Development and within notable habitats in close proximity.

Great Crested Newts

The GCN ecological surveys conducted in the wider steel works did not identify any GCN present onsite. There are no ponds within the red line boundary and no ponds will be directly affected by the Proposed Development. The Site does offer habitats which could provide suitable foraging habitat for GCN including tall herb ruderals. However, given the lack of suitable breeding waterbodies, GCN are considered unlikely to be present.

Reptiles

- 4.3.9 RSK Biocensus conducted reptile presence/ absence surveys during 2022 in the wider steel works. Small numbers of common reptiles (Common lizard and slow

worm only) were identified during these surveys though the populations were concentrated towards the southern extent of the steel works (at least 300m to the south of the Site). The Site provides suboptimal habitats for reptiles and while there will be direct loss of small areas of suitable habitat it is considered that there is more suitable habitat in the wider area.

Birds

- 4.3.10 The Site doesn't contain habitat suitable to support breeding or overwintering birds.

Bats

- 4.3.11 RSK Biocensus identified that there was low levels of foraging activity of common species within the wider steel works. There are no habitats suitable to support roosting bats within the Site.

Water Voles and otters

- 4.3.12 The ecological surveys conducted in the wider steel works did not identify any water vole or otter present onsite. There are no waterbodies within the Site and therefore, they are considered to be absent.

5.0 ECOLOGICAL RECEPTORS ASSESSMENT

5.1 IEFs

- 5.1.1 Following a review of the known baseline (outlined in Section 4.0 above), Table 4 lists the ecological features/receptors and details which have been carried forward to the detailed assessment. Those carried forward are important ecological features (IEFs) of sufficient conservation value with a potential to be affected by the Proposed Development, and therefore requiring further consideration within this report.

Table 4 Determination of IEFs to be scoped in for further assessment.

Receptor	Justification	Scope In/Out
Statutory designated sites	Statutory designated sites support a range of habitats and European and nationally protected species. However, given the distance of these statutory designated sites over 1 km from the red line boundary no direct or indirect impacts are anticipated on the following sites which have been scoped out of detailed assessment. • Crymlyn Bog/ Cors Crymlyn SAC and Ramsar • Cefn Cribwr Grasslands / Glaswelltiroedd Cefn Cribwr SAC • Kenfig Pool and Dunes National and Local Nature Reserve • Kenfig/ Cynffig SAC and SSSI • Eglwyd Nunydd Reservoir SSSI • Margam Moors SSSI	Scoped out
Non-statutory sites	There are 3 non-statutory sites within 1km of the site boundary. There will be no direct or indirect impacts on the sites therefore the sites have been scoped out of detailed assessment.	Scoped out
Open Mosaic Habitat (Ephemeral)	The ephemeral and bare ground habitats present onsite are collectively identified as open mosaic habitat on previously developed land which is a habitat of principal importance in Wales.	Scoped in
Scrub	The area of dense scrub is present within the site.	Scoped in
Invertebrates	During field studies, no habitat of particular value for invertebrates within the site was identified. It was noted that the ephemeral habitat present could support an assemblage of common invertebrates. The habitat loss due to the Proposed Development is small and there is more valuable habitat adjacent to the Proposed Development. Invertebrates have therefore been scoped out of the detailed assessment.	Scoped out

Receptor	Justification	Scope In/Out
GCN	There are no ponds within the red line boundary and no ponds will be directly affected by the Proposed Development. The site does offer habitats which could provide suitable refuge for GCN including woodland, tall herb ruderals and scrub. However, due to the absence of GCN during ecological surveys no significant effects are anticipated and therefore GCN are scoped out of further assessment.	Scoped out
Reptiles	Small numbers of common reptiles were identified during reptile presence/absence surveys within the wider steelworks. Habitats used by reptiles (ephemeral) will be lost due to construction and therefore this receptor has been scoped into the detailed assessment.	Scoped in
Birds	Although there are records of notable bird species within the wider steel works area, there are no habitats within the Site suitable to support breeding or overwintering birds. The Site is therefore determined of low local value to birds. The embedded mitigation in place such as measures to reduce construction disturbance by site personnel and increased lighting/noise highlights how impact pathways on birds will be minimal and therefore birds have been scoped out of the detailed assessment.	Scoped out
Bats	Surveys identified low levels of bat activity from common species within the wider steel works. There are no habitats suitable to support roosting bats within the Site. The embedded mitigation in place such as measures to reduce construction disturbance by increased lighting/ noise highlights how impact pathways on foraging/ commuting bats will be minimal and therefore bats have been scoped out of the detailed assessment.	Scoped out
Water vole and Otter	No suitable habitats were found onsite and surveys conducted of both species found no evidence they were using habitats within the wider steel works. Both species have therefore been scoped out of further detailed assessment.	Scoped out

5.1.2 In Summary, the receptors to be taken forward to assessment are:

- Open mosaic habitat (Ephemeral);
- Scrub; and
- Reptiles.

5.2 Embedded Mitigation

- 5.2.1 The assessment of likely significant effects of the Proposed Development assumes that primary and tertiary mitigation measures are in place. These measures are identified below, with a summary provided on how the measures contribute to the mitigation and management of potentially significant environmental effects.
- 5.2.2 Embedded mitigation and includes modifications to the location or design to mitigate impacts, these measures become an inherent part of the Proposed Development.
- 5.2.3 A summary of the primary mitigation that has been incorporated into the design of the Proposed Development that will protect the existing ecology has been provided here:
- Buffer distances to the site boundary would be enforced, where possible, to minimise impacts with the surrounding habitats.
 - Areas of temporary land take will be returned to its current state.
 - Works will avoid impacting vegetated bunds in those areas not designated for hardstanding.
 - The Proposed Development has avoided direct land-take from designated sites. Mitigation for the loss of any valuable habitats within the red line boundary, including ephemeral habitat, would be incorporated into the biodiversity benefit assessment and post development landscape plan. The spoil heaps which currently support the ephemeral habitat will be stored for use in habitat creation within the wider steelworks site, ensuring that there is no net loss of habitat within the steelworks.
 - The Proposed Development may require lighting during construction however this will be kept to a minimum due to no night working. Operational lighting would also be kept to a minimal for security purposes and only when required. The lighting will also be informed by the project ecologists to ensure low light spill devices are used for adjacent habitats and also to ensure low lux levels are maintained, minimising impacts on nocturnal species such as bats using the site for foraging, roosting and commuting.
 - Any vegetation removal would be removed outside of bird breeding season March – August inclusive.

5.3 Tertiary Mitigation

- 5.3.1 Tertiary mitigation will be required as part of legal requirements or standard best practices. These would be written into the Proposed Development's construction environmental management plan (CEMP) and landscape environmental management plan (LEMP) to ensure they are managing environmental and ecological impacts and safeguard during the lifecycle of the project. It is anticipated that these reports will be conditioned and provided by the Applicant to Neath Port Talbot County Council for agreement ahead of construction. Mitigation measures relevant to ecology that would be included in the CEMP plus LEMP would include:

- Construction to take place during working hours 7am – 7pm to minimise construction required lighting. The lighting design would comply with the Lighting Strategy and use light fittings chosen to limit stray light and minimise impacts on sensitive species. The lighting would also be designed to minimise the visibility from sensitive receptors off-site.
- Transport management plan will be enforced during construction.
- A small proportion of habitat within the site, primarily around the field margins, was identified as having some potential to support a small population of common reptiles. All reptile species are protected from killing or injury under the Wildlife and Countryside Act as amended (W&CA). The project ecologists will ensure a precautionary works method statement be enforced during construction works to ensure reptiles and their resting habitats are safeguarded. This will include measures such as phased vegetation clearance process would be undertaken to displace any reptiles from the development footprint into retained habitat under the supervision of a suitably experienced ecologist. Removal of vegetation and of places of shelter/hibernation features would be undertaken outside of the reptile hibernating period (October to February inclusive), during periods of warm, dry weather. If this is not possible, vegetation would be cut to the ground (to remove potential bird nesting habitat), but the roots would remain intact until hibernation is complete. The root system of vegetation would then be removed once the reptile hibernation season is over.
- Removal of vegetation, ground clearance and the commencement of construction activities have the potential to risk killing or injuring nesting birds, and to damage or destroy nests, including those of ground-nesting species, should works be undertaken during the breeding bird season (considered to be late February to August). Birds and their nests are protected under the W&CA and the removal of scrub and trees, and ground clearance works would generally be undertaken outside of the breeding bird season. Where it is not possible to undertake these works outside of the breeding bird season, an inspection for nests would be undertaken by a suitably experienced ECoW prior to the removal of vegetation. If nesting birds are identified during this process, works in the vicinity of the nest (estimated to be a 10m standoff) would cease until the young have fledged.
- There is a minimal risk of vehicle oil/fuel spillage from both the construction/operational phases. However, the site management team will be trained in use of spill kits and other pollution prevention measures. There will also be a dedicated refuelling area which will be bunded to ensure no run-off pathways onto the adjacent vegetation.

6.0 ASSESSMENT OF EFFECTS

6.1 Identification of Ecological Importance

- 6.1.1 The assessment of effects is based on the Proposed Development description provided by the client.

Table 5 Ecological Importance Assessment

Ecological receptor	Intrinsic value of the feature in the context of the Proposed Development	Justification of intrinsic value of feature in the context of the Proposed Development in reference to the baseline conditions
Open Mosaic Habitat (Ephemeral)	County	Good condition open mosaic habitat on previously developed land which is a habitat of principal importance in Wales. Areas of this habitat will be lost during the construction of the proposed development. However, similar habitat will be created within the wider steelworks.
Scrub	Local	The area of dense scrub is where Ephemeral and short perennial vegetation has undergone succession. This area will be lost during the construction of the proposed development. However, the spoil will be moved within the wider steelworks and the habitat returned to Ephemeral and short perennial vegetation.
Reptiles	Local	Common reptiles are known to be present within the wider steel works, however, given the abundance of suitable habitat in the wider area and small footprint of the Proposed Development, the receptor is considered to be of Local value.

6.2 Identification of Potential Effects

- 6.2.1 In the Table 6, the Proposed Development description has been used to identify construction activities and methodology, pathway to effects and subsequent broad effect types.

Table 6 Potential effect identification

Ecological receptor	Development activity	Potential effect pathway	Potential effect
Site habitats	Removal of vegetation to facilitate construction activities	Loss of small amounts of habitats as well as possible adverse effects during construction due to tracking through habitat. Pollution run off	Direct habitat loss Degrading of habitat
Reptiles	Tracking over suitable habitat Vegetation removal to facilitate construction works. Construction, including use of plant, equipment, increased presence of site personnel and disturbance from increased noise and pollution.	Destruction of suitable reptile habitat Direct physical removal of resting habitat Accidental disturbance from site personnel and through noise from construction activities	Mortality Direct habitat loss Disturbance

6.3 Potential Effect Significance – Construction Effects

- 6.3.1 Having identified the ecological importance of the Site, and potential effects, for scoped-in ecological features, the sections below consider significance.

I. Site habitats – Open Mosaic Habitat - Ephemeral (Priority habitat)

- 6.3.2 There is approximately 0.4ha of open mosaic habitat (ephemeral) onsite which will be permanently lost to the Proposed Development. This habitat is considered to be in *Good* condition and is a priority habitat. Due to the loss of this habitat as a result of the Proposed Development, prior to mitigation this will result in a **permanent** effect, which would be **significant** at the **County** Level using CIEEM guidance.
- 6.3.3 However, the Landscape Mitigation Plan (LMP) submitted alongside the Planning Application includes measures to store the spoil that this habitat is formed on top of. This spoil will then be used in the wider steel works to create spoil mounds, bunds and fill gabion baskets in order to create new areas of ephemeral habitat. This will ensure that there is no net loss of this priority habitat within the steel works. This will be included in a LEMP, agreed with Neath Port Talbot County Council prior to construction, to ensure longer-term management requirements are met. The habitat creation if undertaken and managed carefully has the potential to result in a **direct, long-term, permanent** effect, which would be significant using CIEEM guidance.

II. Site habitats – Scrub (Non-priority habitat)

- 6.3.4 There is approximately 0.2ha of scrub onsite which will be permanently lost to the Proposed Development. This habitat is considered to be in *Good* condition. Due to the loss of this habitat as a result of the Proposed Development, prior to mitigation this will result in a **permanent** effect, which would be **significant** at the **Local** Level using CIEEM guidance.
- 6.3.5 However, the Landscape Mitigation Plan (LMP) submitted alongside the Planning Application includes measures to store the spoil that this habitat is formed on top of. This spoil will then be used in the wider steel works to create spoil mounds, bunds and fill gabion baskets in order to create new areas of ephemeral habitat. This will be included in a LEMP, agreed with Neath Port Talbot County Council prior to construction, to ensure longer-term management requirements are met. The habitat creation if undertaken and managed carefully has the potential to result in a **direct, long-term, permanent** effect, which would be significant using CIEEM guidance.

III. Protected Species - Reptiles

- 6.3.6 The ecological survey work has identified that a small population of common lizard and slow worm are present within the wider steel works. A small number of individual reptiles could be disturbed and potentially suffer incidental injury or mortality when site clearance works commence, in particular the removal of vegetation, topsoil and any material that could be used as a refuge. Although habitat suitable for reptiles is present on the Site, there is additional habitat of good quality within the surrounding area.

- 6.3.7 The risk of injury or killing will be minimised by measures outlined in the embedded mitigation, including proposed precautionary working method statements (PWMS), whilst the retention of the habitat within the wider steel works will ensure the continued availability of foraging habitat for reptiles.
- 6.3.8 Prior to any vegetation removal an ecological clerk of works will hand search the area and remove any likely reptile refuges, and vegetation will be cut in stages before being cut to ground level prior to final removal to displace reptiles into retained habitats adjacent.
- 6.3.9 With mitigation in place the magnitude of change is **low**, and there is likely to be a **direct, short-term, temporary** effect on reptiles from the construction works, which would be **Not Significant** using the CIEEM guidelines and **negligible** significance using the EIA specific assessment methodology.
- 6.3.10 No secondary mitigation measures are required as no residual effects have been identified.

6.4 Operation Effects

- 6.4.1 During the operational phase of the project the following aspects of the proposed project could cause impacts on the ecological receptors that have been scoped in. This assessment has considered the embedded and tertiary mitigation measures from Section 5.2 and 5.3.

IV. Site habitats – Open Mosaic Habitat - Ephemeral (Priority habitat)

- 6.4.2 The LEMP would outline an appropriate long-term management regime for the areas of open mosaic creation including a monitoring regime and a feedback loop to allow for remedial measures should the habitat creation not be achieving the desired aims. The magnitude of change, when considering the embedded measures, is low. Therefore, there is likely to be a **direct, long-term, permanent positive** effect, which would be **Significant** using the CIEEM guidelines and **Moderate** significance using the EIA specific assessment methodology.

V. Protected Species - Reptiles

- 6.4.3 No operational impacts are envisaged.

7.0 SUMMARY OF EFFECTS

- 7.1.1 The Proposed Development of the Site will take place on habitats that primarily include open mosaic (ephemeral) and bare ground. A small area of early successional scrub habitat will be temporarily impacted, however this habitat will be reinstated following completion of the works. A small area of open mosaic habitat and scrub will be permanently lost but a bespoke habitat creation scheme will see this habitat moved within the wider steelworks. Reptiles are present on Site and a PWMS alongside an ecological clerk of works will ensure any construction works will have no negative impact on the on-site reptile population.
- 7.1.2 The operation stage is not considered likely to cause any additional negative effects on ecology after mitigation.

REFERENCES

Ref 1 - Chartered Institute of Ecology and Environmental Management (2017), *Guidelines for Preliminary Ecological Appraisal*. Technical Guidance Series, www.cieem.net/gpea.asp.

FIGURES

Figure 1 Phase 1 Habitat Map



Legend:

- Site boundary
- Phase 1 Habitats**
 - Dense scrub
 - Ephemeral / short perennial
 - Bare ground
 - Hardstanding

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Rev	Date	Project Code	Drm	Chk	App

P&C EAF

RSK
biocensus
EXPERTS IN ECOLOGY

TITLE: Figure 1:
Phase 1 Habitats

0 10 20 30
Metres
SCALE: 1:1,400 @ A3

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