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Planning, Landscape & Environment
an **RSK** company

P-FIELDS, PORT TALBOT

Landscape and Environmental Management Plan (LEMP) & Biodiversity Management Plan (BMP)

TATA Steel Ltd
March 2025

For: Condition 5

10.03.2025

Rev03

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Document history

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Revision		Name	Date
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02	Author	Hannah Low	20.03.2025
03	Author	Hannah Low	27.03.2025

1 INTRODUCTION

- 1.1.1 This combined Landscape and Environmental Management Plan (LEMP) and Biodiversity Management Plan (BMP) has been prepared on behalf of Tata Steel UK Limited (Tata Steel) by Stephenson Halliday (Landscape) and RSK Biocensus (Ecology) to address Condition 5 of the Full Planning Permission Application P2024/0693.

Condition 5 *“Prior to the commencement of development, a written Landscape and Environmental Management Plan (LEMP) for the site and wider steelworks shall be submitted to and approved in writing by the Local Planning Authority. The LEMP shall reflect the ecological mitigation and enhancement measures included in the Green Infrastructure Statement dated October 2024 (including the use of site created spoil as detailed in paragraphs 1.21 and 1.22) and tertiary mitigation in the P Fields Ecological Impact Assessment dated July 2024. All approved mitigation and enhancement and planting in the HMP shall be carried out in accordance with the HMP by the end of the third planting season following the first use of the development”.*

Reason *“To ensure all the ecological aspects and mitigation set out within Environmental Statement are adhered to and to accord with Policy EN7 of the Neath Port Talbot Local Development Plan”.*

- 1.1.2 The description of proposed development is as follows:

“The installation and retention of concrete hardstanding for industrial use associated with the continued operations of the steelworks, and landscaping, green infrastructure and drainage works”.

This LEMP/BMP has been prepared for planning purposes only, to confirm the client’s commitment to the long-term management and maintenance of the landscape and to support onsite habitats and to ensure wildlife and biodiversity is nurtured and sustained. Whilst it provides an indication of activities, and the level of workmanship required it has not been prepared for contractual purposes and should not be relied upon as the basis for any contractual agreements. The LEMP/BMP refers to, and should be read in conjunction with the following P-Fields planning drawings and documents:

- Net Biodiversity Benefit Assessment Report - by RSK Biocensus;
- Landscape Strategy including Appendix 1 Landscape Mitigation Plan – by RSK Stephenson-Halliday;
- Drainage Strategy - by JBA Consulting;
- Green Infrastructure Strategy - by Turley;
- Site Layout Plans - EAF-LAW-P-X-DR-A-90101_P02 to EAF-LAW-P-X-DR-A-90105_P02 – by Lawray Architects

- 1.1.3 This 30-year LEMP/BMP provides the documented basis for successful establishment, after-care, and long-term management and maintenance of the proposed landscape and habitat mitigation. The management plan also sets out operations for a 30-year period following practical completion of the landscape and habitat works to comply with Net Biodiversity Benefit guidance.

- 1.1.4 The LEMP/BMP objectives are driven by the overall design intentions for the scheme.

- 1.1.5 Planned maintenance and management operations are described for the proposed removal and relocation of the existing spoil heaps and the successful restoration of the open mosaic, identified as a key habitat found within this industrial setting.
- 1.1.6 **Please note: this LEMP/BMP document addresses the specific requirements set out in Condition 5 of the P-Fields Full Planning Permission P2024/0693. The open mosaic habitat and soil heaps generated from the site clearance and construction process at P Fields will be stored and re-used elsewhere on land controlled by Tata under the agreed operational management, maintenance and monitoring procedures for such habitat and soil in the approved LEMP/BMP document as part of the EAF Planning Permission P2024/0711. In practice, it is the EAF LEMP/BMP document that will deliver all landscape and ecological management and mitigation across the wider EAF site, beyond the P-Fields boundary. For completeness, all the relevant recommendations in the EAF LEMP/BMP that are applicable to open mosaic habitat and soil heaps in the P Fields development are repeated here to ensure a consistency of approach based on the position already agreed with officers at the Council.**

2 OVERALL STRATEGY

- 2.1.1 P-Fields is a reference to an area located within the Port Talbot Steelworks site in Port Talbot, South Wales.
- 2.1.2 The P-Fields area accommodates very little in terms of existing vegetation as the site is largely made up of degraded hardstanding, compacted rough and potentially contaminated ground.
- 2.1.3 Several large spoil heaps feature within the P-Fields red line boundary. Spoil heaps are a key feature within this industrial landscape and can be found across the wider steelworks site in various formations including large wide spreading mounds and, as roadside bunds.
- 2.1.4 The spoil is a waste material associated with the steel manufacturing processes. Over time, these waste deposits have piled up across the site, unintentionally providing ideal conditions to support the establishment of open grass mosaic, now considered a key habitat found across this industrial landscape.
- 2.1.5 The overall landscape strategy for the P-Fields site is to retain as much of the open mosaic habitat as possible by removing the mounds and storing the material elsewhere on site for future projects. This will ensure existing seed banks are retained on site and the spoil can be used to re-create conditions that will allow mosaic habitat to re-establish. Refer to Section 4. Landscape Proposals on how this will be achieved.

3 SUMMARY OF BASELINE CONDITIONS

- 3.1.1 The P-Field application area is approximately 6.05 ha. It is located south of the proposed Electric Arc Furnace (EAF) and south-east of the existing BOS lagoon. The site is industrial and dominated by hard-standing, rough ground and spoil mounds. The habitats on site are primarily that of open mosaic habitat that covers existing spoil mounds.

- 3.1.2 The site is immediately bordered to the north, south, east and west by the operational steelworks with access roads to the east and west and railway tracks running parallel along the eastern boundary.
- 3.1.3 Habitats recorded within the red line boundary comprise largely of open mosaic on previously developed land (comprising semi-improved neutral grassland and ephemeral short perennial vegetation), hard standing and bare ground.

The existing site was found to potentially support the following fauna:

- common lizard and slow worm;
- breeding birds;

- 3.1.4 The development footprint itself is set within brownfield habitats.
- 3.1.5 The application area is not covered by any landscape or ecological designations. However, the existence of the open mosaic habitat has been identified as a key habitat and has informed and influenced the treatment of the spoil mounds and the proposals for retaining and expanding the habitat across the wider steelworks site.

4 LANDSCAPE PROPOSALS

- 4.1.1 Approximately 6000m² of the spoil heap material will be removed from within the P-Field application area to facilitate development proposals as shown on the Landscape Mitigation drawing (Appendix 1 of the Landscape Strategy).
- 4.1.2 Material will be excavated, removed and set aside for future placement elsewhere within the wider site as part of the EAF mitigation proposals. This is considered the most appropriate form of mitigation and enhancement available and will enable the retention of the existing seed bank thus retaining the existing Green Infrastructure on site.
- 4.1.3 The excavated spoil will be used for the creation of habitat conditions including:
- fill for gabions to form modular biodiversity baskets;
 - new spoil mounds to support the establishment of open mosaic habitat and,
 - the creation of roadside bunds to provide mitigation to roadside verges.
- 4.1.4 These new formations will be created beyond the P-Fields application area as part of the wider EAF site mitigation proposals to further expand the open grass mosaic habitat across the wider steelworks site. Final locations of these features will be agreed as part of the EAF LEMP and will be created using the spoil that will be removed and stored from the P-Fields application area. Locations will be identified in collaboration with Tata Steel UK (and their Ecological and Landscape Consultants) along with agreement with officers from the NPT Council.
- 4.1.5 Although mitigation measures will marginally improve the local appearance, the main purpose is to preserve and expand habitat and biodiversity value across the wider site.

4.1.6 Newly formed spoil mounds and roadside bunds will be left bare and untreated and will not be seeded with any commercial seed mixes allowing the existing seed bank to recover and self-colonisation to take hold, replicating existing mosaic habitat on other spoil heaps located across the wider steelworks site.

4.1.7 The landscape proposals will focus on the retention, enhancement and/or creation of the following habitat types and features:

Landscape Typology	Description, Objective and Target Condition
Retained Tree and Scrub Vegetation	Existing trees and scrubland to be retained where clearance work is not required. Objective: To provide a continuity of green infrastructure and habitat for existing species within the site. Target Condition: Density issues - may require some scrub management to encourage the establishment of ground flora species and to further support local wildlife habitat.
Spoil Mounds	Site won spoil to be arranged in mounds / bunds. Final locations to be agreed as part of the EAF LEMP and created using the spoil that will be removed and stored from the P-Fields application areas. Objective: To create 'brownfield' type habitat (open mosaic habitat) using spoil mix on site to encourage self-colonisation of flora species and creation of habitat for reptiles, invertebrates and other wildlife in the area. Target Condition: To be monitored for habitat that has established. Potential to 'top-up' spoil as material naturally decomposes or erodes. The target habitat condition is 'Good' and in line with the guidelines for the selection of SINC sites in South Wales.
Retained Open Mosaic (ephemeral / semi-improved neutral grassland)	Existing mosaic habitat can be retained where clearance or excavation work is not required. Objective: To provide a continuity of habitat for existing species within the site. Target Condition: The target habitat condition is 'Good' and in line with the guidelines for the selection of Special Interest for Nature Conservation (SINC) sites in South Wales.
Gabion Baskets	Gabion baskets - to be installed along edge of hardstanding area by the BOS lagoon as part of the wider EAF project and filled with site won spoil from the P-Fields development site. Objective: To create 'brownfield' type habitat (open mosaic habitat) using spoil mix on site to encourage self-colonisation of

Landscape Typology	Description, Objective and Target Condition
	flora species and creation of habitat for reptiles, invertebrates and other wildlife in the area. Target Condition: To be monitored for habitat that has established. Potential to 'top-up' spoil as material naturally decomposes or erodes. The target habitat condition is 'Good' and in line with the guidelines for the selection of SINC sites in South Wales.

5 LANDSCAPE IMPLEMENTATION AND MANAGEMENT

5.1 British Standards and Published Guidance

- 5.1.1 **Landscape Operations** - All landscape operations to be in accordance with BS 4428: 1989 Code of practice for general landscape operations.
- 5.1.2 **Soil Management and Storage** - Soil management and storage should follow best practice guidelines; refer to DEFRA; Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.
- 5.1.3 **Pesticides and Herbicides** - No pesticides or herbicides will be used at any time. Usage on other parts of the site, where not already specified in this LEMP/BMP, will not be permitted. Should any pesticides and herbicides be required for areas within any of the new hardstanding areas in the P-Fields area then, they shall be applied according to manufacturer's recommendations and current legislation, including:
- The Food and Environment Protection Act (1985);
 - The Control of Pesticides Regulations (1986);
 - The Control of Substances Hazardous to Health Regulations (2002);
 - The Environment Protection Act (1990); and
 - The Environment (Wales) Act (2016).

5.2 Landscape Management Overview

- 5.2.1 Management objectives are focused on achieving objectives described in the Landscape Proposals and facilitated by the maintenance operations.
- 5.2.2 Maintenance operations are defined as long term cyclical operations over several years to allow successful establishment of the soft landscape areas.

- 5.2.3 The management plan sets out operations for a 30-year period following practical completion of the landscape and habitat works to comply with Net Biodiversity Benefit guidance.

Responsibility for Delivery of the LEMP/BMP

- 5.2.4 The ongoing maintenance and management of the spoil mounds, bunds and scrapes will be overseen by Tata Steel and (where applicable) its tenants, along with the appointed landscape contractor and ecological consultant. The works undertaken and scheme establishment will be assessed annually by appointed ecological consultant together with the landscape contractor and Tata Steel, with a major assessment after the fourth year to allow revision to the existing maintenance and management regime to reflect findings. This assessment will be carried out in conjunction with the ecological consultant to ensure that the requirements for habitat creation and the successful establishment of the open mosaic habitat are met and to identify and mitigate any previously unforeseen impacts. Maintenance for the following years is to be reviewed at 3-year intervals using the same method to ensure appropriateness of regime. The matrix in Appendix 1 identifies the anticipated work over an extended 30-year period.
- 5.2.5 This approach will ensure that the integrity of the spoil features and mosaic habitat created in the early years can be maintained for the benefit of people who work at or are visitors to the site, as well as providing a benefit to persons who live near to the site. However, more importantly it will ensure that the landscape features develop to maximise the ecological and biodiversity potential of the proposals.

General Landscape Management

- 5.2.6 Maintenance operations will be undertaken in accordance with the prescriptions outlined below and the schedule presented in Appendix 1 of this document.
- 5.2.7 It is the contractor's responsibility to ensure that all works are carried out strictly in accordance with the requirements of the foregoing legislation and other relevant Codes of Practice, British Standards, rules, guidelines or directives that relate to the use of hazardous materials. The contractor will make such notifications as are required under the terms of The Food and Environment Protection Act (1985). The contractor will be also responsible for replacing all plants killed or damaged by inappropriate use of herbicides.
- 5.2.8 Arisings from management and maintenance operations shall be removed from site and deposited at a legal tip or green compost facility. The exception to this is that any large, felled branches/logs may be retained on site and used as habitat piles in locations specified on site by the ecological consultant. Similarly, any scrub vegetation removed through clearance works should be removed off site unless there is scope to create habitat brash piles in locations specified on site by the ecological consultant. As there is no large vegetation removal in the P-Fields area (just low levels of scrub and grassland), this is unlikely to be required.
- 5.2.9 Whilst the aim and objectives of this management plan is set out in some detail with respect to habitat management, opportunities for the creation of additional microhabitats should be taken wherever possible. Deadwood, water-filled cavities, jagged stumps, splits, fungal growths and holes in tree trunks will be retained unless they are creating a safety hazard.
- 5.2.10 Care will be taken to avoid interference with the established levels and contours of the ground, and to avoid damage to footpaths, roads, drains, manholes, existing structures and

vegetation during maintenance and management operations. Damage so occasioned shall be made good at the earliest opportunity.

- 5.2.11 **Vegetation Removal - Protection of Nesting Birds** - To ensure compliance with legislation protecting nesting birds, clearance of any suitable bird nesting habitat (e.g. scrub and tall vegetation along field margins) should be avoided within the main nesting bird season (March to August inclusive). Some bird species, such as feral pigeons, are known to nest outside this period so if any substantial hedge strimming removal or other vegetation is required or if vegetation clearance is required outside of the nesting season or within takes place within the nesting season, then it is advised that vegetation must be checked for nests by an ecologist within 48 hours prior to works commencing. If nests are found, they will be retained with a suitable buffer (dependent on species) to avoid disturbance until the young have fledged.
- 5.2.12 **Vegetation Removal – Protection of Reptiles** - Areas of tall vegetation provide suitable habitat for reptiles. Vegetation should be removed in a two-stage sequence to avoid accidental harm and to encourage them to move out of the area. An initial cut down to 150 mm above ground should be carried out first. Following a minimum 24hr period to allow reptiles to disperse, a second cut can be carried out to reduce vegetation down to ground level. If any reptiles persist or, are seen on site after the 24hr dispersal period, works must temporarily cease and advice be sought from an ecologist. The removal of any debris piles around the edges of the site (i.e. which connect to reptile habitat) should be supervised by an ecologist to make sure reptiles are not present underneath. In the unlikely event that reptiles are discovered, they will be carefully removed from the work areas by an ecologist and placed within suitable habitat. These works should be undertaken during the active season for reptiles (avoiding the period when reptiles are hibernating underground), which generally occurs between March and October (inclusive) and during suitable weather conditions e.g. warm, sunny days when air temperatures are above 10°C.
- 5.2.13 Any excavation works must be at least 1 m from any hedges and outside of tree root and canopy protection zones.
- 5.2.14 Surveys indicate that badger may commute across or forage within the site boundary at night. Any open excavations must therefore be covered overnight, or if this is not possible, ramps must be installed at either end to allow any animals to escape, should they fall in.
- 5.2.15 It will be the contractor's responsibility to ensure that all works and operations are carried out by experienced operatives holding relevant qualifications and training certificates, or under the supervision on site of such a person. All works detailed in the following specifications shall be carried out in accordance with good practice, using materials, plant and machinery appropriate to the task, undertaken in such a manner that avoids damage and/or nuisance to the site and its surroundings.

Litter Removal

- 5.2.16 Litter, including that which may collect in any new habitat creation, should be removed at each visit.
- 5.2.17 **Note: any works carried out around water bodies, however small, should be fully risk assessed to ensure that safety is at the forefront of all operations to establish the safest methods for litter removal.**

5.2.18 All litter would also be collected and removed from the P-Field site to preserve the general appearance of the site and to ensure habitats are not inhibited or restricted.

5.2.19 All litter and debris would be removed off site to an authorised tip.

Invasive Weeds

5.2.20 Should invasive weeds (those species registered on the Schedule 9 of the Wildlife and Countryside Act, 1981 or the Invasive Alien Species Order, 2019) be found within the proposed mitigation areas, works within the contaminated area must cease immediately, appropriate biosecurity measures implemented to restrict unauthorised access and specialist advice sought to allow for implementation of an invasive weeds management plan.

5.2.21 The presence of invasive species is not an offence in itself; however, it is considered best practice to responsibly manage all areas affected by invasive/injurious plants so as to avoid their spread into the wild and to avoid detrimental impacts on biodiversity and the environment as well as creating potential constraints to future development.

6 RETAINED LANDSCAPE FEATURES

6.1 Retained Open Mosaic Habitat

Management Objective

6.1.1 Existing areas of open mosaic habitat require little or no management from an amenity perspective, given the industrial and operational context of this site and the fact that typical grounds maintenance operations would be potentially detrimental to the unique mosaic habitats that have established here.

Maintenance Operations

Retained Open Mosaic Habitat	
Maintenance Operation	Method
Visual inspection of all open mosaic areas and recommendations for any encroaching scrub or dominant weeds to be removed where necessary.	A visual inspection of these areas shall be carried out in the first year and thereafter every 5 years unless advised otherwise by a suitably qualified ecologist. The inspections will be to assess if scrub or ruderal herbs or weeds are taking hold and to advise what remedial actions need to be implemented.
Scrub encroachment removal.	Hand weed only as no pesticides are to be used that would potentially damage open mosaic habitat. Where scrub species such as buddleia or nettles have taken hold, use hand tools to gently dig around the base of the plant to loosen and remove. Fill any voids back with existing soil or spoil – do not use imported topsoil.

7 PROPOSED LANDSCAPE AND HABITAT FEATURES

7.1 Open Mosaic (Self colonised)

Management Objective

7.1.1 The open mosaic is an existing and established habitat across the wider steel works site. It is generated through self-colonisation where spoil heaps and disturbed or rough ground provided the ideal surface for wind borne seed to take hold. This habitat is considered of high ecological value and self-seeding as a preferred method of establishment. Therefore, it is proposed any site-won soil or spoil generated through the P-Field construction works will be retained and stored on site to create further spoil mounds and bunds where open mosaic habitat can establish in the same way.

7.1.2 Some indicative mosaic habitat species communities are outlined in the table below.

Botanical Community	Description
Annual community	Comprised mainly of stress tolerant ruderals, which are short in stature and suited to low nutrient availability. Typical examples would be <i>Arenaria serpyllifolia</i> , <i>Centaurea erythraea</i> , <i>Linum catharticum</i> or <i>Trifolium arvense</i> .
Moss / Liverwort community	Can contain both acrocarpous (i.e. usually unbranched, tufted) and pleurocarpous (usually branched, carpeted) mosses and are usually relatively open and less luxuriant than in more mature habitats, often with bare ground present in a fine-grained mosaic. They can occur in discrete patches or interspersed in other communities such as open grassland or heathland. Common species are usually present such as the mosses <i>Brachythecium rutabulum</i> , <i>Dicranum scoparium</i> or <i>Hypnum cupressiforme</i> , and the liverworts <i>Lophocolea heterophylla</i> or <i>Ptilidium ciliare</i> .

Lichen community	Species with a range of growth forms might be present, for example foliose (leaf-like), crustose (crust) or fruticose (shrubby and branched).
Ruderal community	Taller annuals, biennials or short-lived perennials and typical of slightly more nutrient-rich, or less disturbed conditions than the annual communities. Typical examples would be <i>Daucus carota</i> , <i>Linaria vulgaris</i> , <i>Medicago lupulina</i> or <i>Reseda luteola</i> .
Inundation community	Species suited to periodic, often seasonal flooding. Vegetation is usually interspersed with bare areas of mud which can have a caked surface during dry periods and can result in annuals establishing. Typical species would be <i>Alopecurus geniculatus</i> , <i>Juncus bufonius</i> , <i>Persicaria maculosa</i> or <i>Ranunculus flammula</i> .
Open grassland community	Comprised mainly of perennial, stress-tolerant species of short stature with patches of bare ground at very fine-grained scale and often with a significant number of annual species or lichens in the sward. Typical species would be <i>Festuca ovina</i> , <i>Hypochaeris radicata</i> , <i>Pilosella officinarum</i> or <i>Rumex acetosella</i> .
Flower-rich grassland community	Characterised by more robust mesotrophic forbs such as <i>Centaurea nigra</i> , <i>Lotus corniculatus</i> , <i>Ranunculus acris</i> or <i>Trifolium pratense</i> .
Heathland community	Composed mainly of dwarf shrubs, often interspersed or in mosaics with graminoids, bryophytes or lichens. On OMH they tend to have a more open structure with less plant litter and other organic matter build up on the substrate than in more typical heathlands. Typical species include <i>Calluna vulgaris</i> , <i>Deschampsia flexuosa</i> , <i>Festuca ovina</i> or <i>Nardus stricta</i> .

NBB: Design and Implementation - Considerations to improve habitat condition

Condition Assessment Criteria (Design and Implementation)	Achieved
The habitat shows indication of disturbance.	(Yes)
There is a mosaic of the communities present.	(Yes)
The habitat contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	(Yes)

NBB Management - Interventions to improve habitat condition

Condition Assessment Criteria (Management)	Achievable through management
No invasive species present	(Yes)
Disturbance of the substrate to prevent succession	(Yes)

Vegetation structure is varied, providing opportunities for invertebrates to live, eat and breed

(Yes)

Implementation for Open Mosaic

Implementation	Method
Spoil or soil mounds created on site	Site won material will be stored on site for future use or directly relocated around the site to create spoil mounds or roadside bunds (final locations tbc on site). These features will be left untouched to allow self-seeding to occur.

Maintenance Operations for Open Mosaic

Maintenance Operation	Detail
Monitoring	Ecologist to monitor new self-seeded areas in the first year after the creation of the spoil mounds and bunds for signs of scrub encroachment, dominant or invasive weeds. Report and make recommendations for removal. Number of inspections per year: 3 (Spring, summer and autumn).

7.2 Gabion Baskets

Management Objective

- 7.2.1 A single length of gabion baskets is proposed along the far edge of the western shore of the BOS lagoon as part of the wider site mitigation proposals. They are not intended as a retaining element although they are located along the base of some existing hard standing / rough ground. They will essentially act as a free-standing structure, although some excavation work will be needed to provide a level base for the installation.
- 7.2.2 The main purpose is to expand 'brownfield' habitat in this area utilising site-won spoil from the P-Fields site as fill. The fill will be a mix of construction materials including brick, concrete and slag-spoil from the steelworks. Turf and soil will be avoided to ensure grass does not take over the plant colonisation.
- 7.2.3 The gabion fill will provide habitat for a variety of invertebrates together with opportunities for self-colonising plant species to establish. It is anticipated that these features will require minimal maintenance other than occasional topping up where material has degraded or eroded over time, and this will be monitored accordingly.

Implementation for Gabion Baskets

Implementation	Method
Excavation for level base	Some mechanical excavation will be required to create a level base for the gabion baskets to sit on. If the area is soft, inert crushed site spoil to be used to provide a solid base.
Basket assembly and fill	Steel square mesh baskets – 0.5m h x 0.5x d x 2m l, 4mm diameter galvanised steel to be assembled on site and filled with site-won spoil.

Maintenance Operations for Gabion Baskets

Maintenance Operation	Detail
Visual inspection	Annual visual inspections to detect damage or abnormalities. Any damage detected should be reported and advice on repair should be sought from the supplier or manufacturer. Abnormalities may include: localised bulging of the face; broken mesh cage; damage by impact or vandalism. No requirement for any cleaning is anticipated.
Monitoring	Monitoring will be required to ensure no invasive weeds have taken hold and the baskets are not slumping unduly.

7.3 Spoil Heaps and Bunds

Management Objective

- 7.3.1 By-products produced from the steelworks operations over the years have been stored across the site and left untouched. This has resulted in the natural colonisation of a particular open mosaic habitat that has established across these features with unintended beneficial bio-diverse qualities. The proposal to retain material created from operations associated with this development will be used in the same way as a sustainable, low or no maintenance feature in this setting with the intention of providing conditions to support open mosaic habitat.

Implementation for Spoil Heaps and Bunds

Implementation	Method
Spoil heaps and mounds	Dumper truck used to transport stored material removed from the P-Fields site to final required locations around the site and deposited to form mounds at suggested heights ranging between 1.5m and 3.5m with a max 1:3 gradient side slopes. Lower linear mounds will be formed to roadside edge no higher than 1.5m; selected locations are shown on the mitigation plans. Spoil heaps are not intended for recreation or access, however, care should be taken to distribute spoil evenly to avoid any potential slumping that can pose a potential hazard on site (engineers to advise on mound formation,

Implementation	Method
	heights and widths in relation to the nature of mixed spoil materials and stability factors).

Maintenance Operations for Spoil Heaps and Bunds

Maintenance Operation	Detail
Monitoring	The new heaps and mounds will be monitored for any signs of slumping that can cause harm or site hazards and remediation works to be applied to clear areas and correct the profiles where necessary. Monitoring should also take place to ensure no dominating scrub species have taken hold inhibiting open mosaic establishment. Advise on removal and remediation (refer to Open Mosaic Maintenance)

8 MANAGEMENT PLAN REVIEW

- 8.1.1 It is proposed that the landscape works will be reviewed at the end of the first 12 months and again at 5-yearly intervals allowing for minor variations in maintenance operations and/or timing of work.
- 8.1.2 It is anticipated that the review of the site will look at the establishment of the open mosaic habitat once it has established.
- 8.1.3 It is anticipated that following the review, any problems or changes that are impacting on the landscape, the ecology and habitats created will be accommodated with the agreement of the Local Planning Authority.

Appendix A: Annual Maintenance Schedule

Maintenance Operation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
General Maintenance												
Litter Removal												
Tidy up areas removing rubbish, litter etc.	•		•		•		•		•		•	
Review of Management Plan												
Monitoring and reporting by ecology consultant and landscape consultant /manager	•		•		•		•		•		•	
Annual review of Management Plan												•
Retained Landscape Features												
Retained Open Mosaic Habitat												
Visual inspection of all open mosaic areas and recommendations for any encroaching scrub or dominant weeds to be removed where necessary			•		•		•		•			
Proposed Landscape and Habitat Features												
Open Mosaic (Self-colonising)												
Monitoring newly formed spoil heaps, mounds and gabions baskets for establishment				•			•			•		
Gabion Baskets												
Visual inspection for damage or abnormalities	•	•		•		•		•		•		•
Monitor habitat establishment	•	•		•		•		•		•		•
Spoil Heaps and Mounds												
Monitor open mosaic establishment	•	•		•		•		•		•		•

Appendix B: 30 Year Landscape Maintenance Programme

Refer to Appendix A for timing/frequency of maintenance operations

Year 1 is Defects Rectification Period

Maintenance Operation	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11-20	Yr 21-30
General Maintenance												
Litter Removal												
Tidy up areas removing rubbish, litter etc. from all ecological areas where appropriate	•	•	•	•	•	•	•	•	•	•	•	•
Review of Management												
Monitoring and reporting by ecology consultant and landscape manager	•	•	•	•	•	•	•	•	•	•	•	•
Annual review of management plan	•	•	•	•	•	•	•	•	•	•	•	•
Retained Landscape Features												
Retained Open Mosaic Habitat												
Visual inspection of all open mosaic areas and recommendations for any encroaching scrub or dominant weeds to be removed where necessary	•	•	•	•	•	•	•	•	•	•	•	•
Proposed Landscape and Habitat Features												
Open Mosaic (Self Colonising)												
Yearly monitoring	•	•	•	•	•	•	•	•	•	•	•	•
Gabion Baskets												
Annual inspection for damage or abnormalities	•		•		•		•		•		Every 2 nd year	Every 2 nd Year
Visual inspection of any areas encroaching scrub or dominant weeds to be removed where necessary	•		•		•		•		•		Every 2 nd Year	Every 2 nd Year
Spoil Heaps and Bunds												

Maintenance Operation	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11-20	Yr 21-30
Monitor for habitat establishment	•		•		•		•		•		Every 2 nd Year	Every 2 nd Year