



Tata Steel UK Limited

Electric Arc Furnace (EAF)

Outline Construction Environmental Management Plan (Outline CEMP)

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1 INTRODUCTION

This outline construction environmental management plan (outline CEMP) has been produced to support the implementation of construction phase recommendations as reported in the electric arc furnace (EAF) Environmental Statement (ES) and other planning application documents. Tata Steel UK Ltd is proposing to construct a new EAF steel production facility and associated buildings and infrastructure (hereafter 'the Proposed Development') on land at the existing Port Talbot Steelworks in South Wales. The proposals are subject to a planning application and a contractor is yet to be appointed for the construction works.

1.1 Aim and objectives

The aim of this outline CEMP is to provide a framework for environmental management of the construction works for the EAF project in order to:

- Provide a mechanism for ensuring that measures to mitigate potentially adverse environmental impacts are implemented;
- Provide assurance to third parties that their requirements with respect to environmental performance will be met; and
- Provide a framework for compliance auditing and inspection to enable the EAF project to be assured that its aims with respect to environmental performance are being met.

The main objective of this outline CEMP is to set out the over-arching approach to how construction works will be managed to avoid, reduce, or mitigate adverse impacts on local residents and the environment. A full CEMP will be prepared by the construction contractor following the framework set out in this outline CEMP.

Subject to receiving planning approval from Neath Port Talbot Council (NPTC), the EAF project will be implemented in accordance with a full CEMP. It is anticipated that the development of a full CEMP would be secured by a condition attached to the planning permission, should it be granted. Preparation and approval of the full CEMP would be required to discharge the planning condition.

Tata Steel UK Ltd will employ a Principal Contractor and other sub-contractors to carry out the works on site. The Principal Contractor will be required to maintain a copy of the full CEMP at all work site offices for reference by the entire workforce. It must be accessible to all site personnel and representatives of the relevant enforcement authority, and all sub-contractors.

This document has been produced in accordance with principles outlined in ISO 14001:2015. The Principal Contractor appointed to the works is expected to demonstrate to the principles of ISO 14001:2015 and to have an Environmental Management System (EMS) certified to the standard.

1.2 Statutory guidance and good practice

All site works shall be undertaken in compliance with the full CEMP and with all applicable legal and regulatory requirements. Tata Steel UK Ltd shall have ultimate responsibility for the construction works. It will be the responsibility of the appointed Principal Contractor to ensure that the works are undertaken in accordance with any legal requirements.

The Principal Contractor shall comply as necessary with the Construction (Design and Management) Regulations 2015 (CDM) and shall comply with all applicable pollution control regulations. The Principal Contractor shall obtain and keep current any necessary consent, authorisation, approval or permission.

The Principal Contractor shall, where relevant, undertake construction works in accordance with current guidance and good practice, including:

- Environmental Good Practice on Site Guidance (C811, fifth edition, Ciria, 2023);
- Planning Policy Wales (Llywodraeth Cymru Welsh Government, edition 12, Feb 2024);
- Control of Dust from Construction Sites (BRE DTi Feb 2003);
- British Standards 5228-1:2009+A1:2014: 'Code of Practice for noise and vibration control on construction and open sites – Noise';
- Institute of Lighting Professionals. Guidance Notes for the Reduction of Obtrusive Light. ILP GN01:2011; and
- Relevant pollution prevention guidance, such as as set out at <https://www.gov.uk/guidance/pollution-prevention-for-businesses>.

2 THE PROJECT

The main details of the project are summarised in this section. The description is limited to an overview of the main elements / approaches sufficient to provide an understanding of the approach to the planned works, and the roles of the main parties responsible for undertaking each part of the works.

2.1 Project description

The Proposed Development consists of the demolition of existing buildings and structures, and the construction of a new EAF steel production facility. The Proposed Development also includes a scrap metal handling facility and associated scrap yards, slag processing facility, chemical and material storage structures, buildings, handling systems, electrical control rooms and power infrastructure, laboratories, offices and ancillary facilities, together with new and amended transport infrastructure, landscaping and associated development.

Components of the Proposed Development are summarised as follows:

- Full planning element:
 - Alterations to existing basic oxygen steel (BOS) making and secondary refining building;
 - Water cooling systems and water treatment plant (including emergency backup power up systems and diesel generator rooms);
 - Fume and dust extraction systems with stacks;
 - Lime handling facility;
 - Slag processing facility;
 - Storage areas / buildings with material handling system;
 - Ancillary plant equipment and pipework;
 - Electrical control rooms with cable carrier systems;
 - Preparation and storage areas;
 - Compressor rooms;
 - Offices and ancillary facilities;
 - Partial infill of the BOS lagoon;
 - New and amended rail track and associated infrastructure;
 - New access roads with gates and parking areas;
 - Landscaping and green infrastructure;
 - Firefighting pump house;
 - Oxygen and argon vessels; and
 - Upgraded laboratories.
- Outline planning elements:

- Scrap metal reception, handling and processing facilities and associated scrap yards;
- Underground and overground electrical infrastructure;
- New access roads and parking areas; and
- New and amended rail track and associated infrastructure;.

Drawings submitted with the planning application are provided in **Appendix 1**.

2.2 Site location and surrounds

The Proposed Development area (hereafter 'the Site') is approximately 160 hectares (ha) in size and is located at the central and southern areas of the established Port Talbot Steelworks at Margam in South Wales. The Site comprises an extensive complex of active industry, areas of previously developed brownfield land, and open areas of undeveloped greenfield land. Land uses within the Site include:

- Operational areas of the steelworks – the planning application boundary comprises a number of operational areas of the steelworks, including:
 - Basic oxygen steelmaking (BOS) and casting plant.
 - Contractor compound and process areas – an area of the steelworks demarcated for contractor activity, including staff offices and welfare.
 - Operational lagoon – a large central body of water in the northern area of the Site.
 - Slab yards – a large area of steel slab storage and transfer.
 - Existing pipeline – a route of over-ground utilities pipelines running from east to west across the Site.
 - Coal stockyard – located in the south-western section of the application boundary, adjacent to Morfa Beach.
- The former Grange Works – built in circa 1954, the former Grange Works included a number of buildings, coke ovens, industrial structures and areas of plant equipment. The buildings and structures were de-commissioned in 1999 and demolished in circa 2004. This area of the Site is now previously developed but cleared land.
- Infrastructure – sections of the incoming and outgoing railway line infrastructure and loading/unloading areas partly fall within the application boundary. A number of existing internal and private roads used by staff and visitors to the steelworks also cross the Site.
- Open areas – within the Site are areas of undeveloped and/or re-vegetated industrial land. These are predominantly located in the southern section of the application boundary. This land includes watercourses and drainage ditches ('reens').

The Site is bounded to the north and east by the existing industrial development of the steelworks. To the west, the application boundary extends as far as Morfa Beach. To the south, the main application area extends as far as the fields north of the Longlands Lane access track and public right of way (PRoW). These fields are crossed by the section of proposed electrical cable connection corridor that lies within the application boundary.

The wider surrounding area comprises a wide variety of different uses and character, including:

- West – Morfa Beach and coastline;
- East – mainline railway line, Eglwys Nunydd Reservoir and the residential areas of Margam and Port Talbot, with the M4 beyond;
- South – greenfield land of Margam Moors, with Kenfig Industrial Estate beyond; and
- North – the wider steelworks operated by the Applicant, harbour and docklands operated by Associated British Ports, with Port Talbot settlement beyond.

The Site forms part of a long-established and operational steelworks. It is an existing destination and major industrial landmark in Port Talbot and Swansea Bay. Major industrial buildings of significant scale and mass are present in this area of Port Talbot, including large emissions stacks and the two blast furnace structures. The buildings and heavy industrial nature of the area in which they operate are integral elements of the character, appearance, and skyline of Port Talbot.

The Site is accessible by a range of modes of transport, including rail, bus, private car and bicycle/walking. The whole of the Site is private and is not publicly accessible. Some industrially active parts of the Site have restricted access due to health, safety and environmental requirements.

2.3 General site arrangements

2.3.1 Construction site set up

Construction site set up works shall include the establishment of secure site access, works signage, dedicated laydown area(s) and construction compound(s). The compound(s) shall be set up in accordance with the Tata Steel UK Ltd HSE policy and procedures if available. Full details can be obtained by reference to the Tata Steel UK Ltd HSE procedures; however, as a minimum this will include the display of:

- Environmental policy;
- Details of environmental constraints including mapping;
- Traffic management information; and
- Site information.

Indicative site layouts are shown in **Appendix 1**. This includes the indicative location of material storage areas, compounds, site access arrangements, and haul routes.

2.3.2 Fencing and site security

Only authorised personnel will be permitted on site. All visitors who need to be inducted or escorted shall be required to make themselves known to security staff at the visitors' centre and then access the Site via the main security gates for Port Talbot Steelworks. They would then pull up to the construction compound and sign in to the local area. All visitors will be required to sign in and out to ensure that site management is aware of the people on site in the event of an emergency.

Visitors and site team will be required to undergo induction training, wear the necessary personal protective equipment (PPE) and be accompanied by a representative on site at all times.

The Site shall be checked on a regular basis to ensure that it is maintained in good condition and is secure. The Principal Contractor shall provide further information.

Suitable fencing, such as 2m tall HERAS fencing, is proposed to protect the important as well as hazardous construction areas. Limited access control shall be set up in storage areas to ensure authorized entry of both workers and material. The security of the Site will be established as mentioned below:

- Adequate number of security personnel shall be deployed to restrict unauthorized entries.
- Security staff shall receive adequate training on first aid, firefighting and emergency preparedness.
- Security staff shall have the emergency lights, torches and other accessories required to facilitate during emergency situations.
- A minimum of 50 Lux lighting shall be maintained on the roads, parking area, and other general areas of the habitat and site.
- Emergency contact numbers shall be displayed at security cabin and wherever required.

First Aid kits shall be available in security cabins.

2.3.3 Site lighting

During the construction phase adequate area illumination will be ensured with area floodlights as well as hoarding mounted lighting for performing activities safely. Indicative construction lighting proposals are illustrated in **Appendix 1, Image B**. Temporary light posts and mobile light masts are also envisaged to be utilised in external construction areas. Temporary mounted lighting will be utilised within buildings.

Site lighting shall be established in accordance with Tata Steel UK Limited health safety and environment policy, environmental management requirements established through environmental assessments and surveys, and planning conditions issued by the local planning authority (NPTC).

Section 35 of The CDM Regulations (2015) states the Site must be provided with suitable and sufficient lighting, which should be, so far as is reasonably practicable, by natural light. This relates to both the construction site as well as the approach and traffic route to the Site.

Site lighting will be at the minimum luminosity necessary (50 Lux) to enable the safety and security of the construction site. In determining temporary construction lighting arrangements for the Site, consideration will be given by the Principal Contractor to sensitive receptors that may experience a nuisance by the light, including wildlife.

General control measures for the use of lighting on site are outlined below:

- Temporary site lighting when used adjacent to residential areas must be fixed with a noise screen to keep noise levels to a minimum;
- As far as is practical, lighting must be directed away from residential properties; and
- Lighting should always be positioned to avoid glare.

2.3.4 Working hours

The normal hours of construction working during the construction period will be:

- 07:00 hours to 19:00 hours Mondays to Fridays;
- 07:00 hours to 13:00 hours on Saturdays.

The following controls will also apply to the works:

- No works, including site deliveries and collections, will take place on Sundays or Public Holidays.
- There will be no stacking of lorries on the Site boundary outside of the working hours.

Any works outside of the normal hours of working will be subject to the requirement to obtain consent from the local planning authority (NPTC). The agreement should include working hours and methods to ensure that the 'best practicable means' to control potential nuisances are included.

Normal hours of work set out above do not apply to emergency works nor to equipment that is required to operate continuously. Details of these will be provided in the full CEMP.

2.4 Project programme and key dates

Indicative programme milestones from commencement of construction to operation are illustrated in **Table 2-1**. The project construction milestones are shown in **Figure 2-1**.

Table 2-1: Indicative programme milestones

Milestone Description	Date
Commencement of construction	Mid 2025
Construction complete	Late 2027
Commissioning	Mid to late 2027
Operation (first melt)	Early 2028

ACTIVITY	DATE	ACTIVITY	START DATE	FINISH DATE	WORKING WEEKS	CALENDAR WEEKS
Project Start	21/07/2025	STRUCTURES				
HANDOVER TO M&E		Consteel Platform Foundation	01/10/2025	13/01/2026	13 Weeks	15 Weeks
Main plant areas		Consteel Building Structure + Cladding	07/01/2026	22/05/2026	17 Weeks	19 Weeks
Consteel Building and Platforms	11-Nov-26	EAF FEP Roof Canopy - Charging Bay Roof	20/03/2025	13/08/2026	20 Weeks	21 Weeks
EAF Bay (including platforms)	23-Oct-26	EAF Foundations + RC Structures + Slag Refractory Found and Walls	21/07/2025	26/03/2026	33 Weeks	35 Weeks
EAF Transformer Bay	06-Jul-26	South Platform	13/08/2026	13/11/2026	13 Weeks	13 Weeks
LF Bay	13-May-26	North Platform	18/09/2026	11/12/2026	14 Weeks	14 Weeks
Balance of plant		Central Melt Shop Operator Room	21/07/2025	10/02/2026	27 Weeks	29 Weeks
Materials handling system	10-Jul-26	Melt Shop Power and Control Building	23/09/2025	22/06/2026	36 Weeks	39 Weeks
Fume Extraction plant (Electrical Building)	09-Feb-26	Fume Extraction System	21/07/2025	13/04/2026	36 Weeks	38 Weeks
Primary Water treatment plant	22-Sep-26	Materials Handling System	21/07/2025	10/07/2026	49 Weeks	51 Weeks
Secondary Water Treatment plant	13-Apr-26	Water Treatment Plant	29/09/2025	07/10/2026	51 Weeks	54 Weeks
Power Distribution Building	03-Sep-26	Reservoir / Lagoon Infilling	21/07/2025	19/03/2026	32 Weeks	36 Weeks
Main Power Centre	21-Aug-26					
Electrical Bridge Foundations and Structure (Area 1)	05-Jan-26					
Pipe bridge foundations	06-May-26					

Figure 2-1: Indicative project construction milestones

3 ENVIRONMENTAL RECEPTORS

The key construction phase sensitive environmental receptors are summarised in this section with consideration as to how they may be affected by the construction works. A brief summary of the potential environmental impacts is also provided. For a detailed summary of potential environmental impacts, please refer to the relevant chapter of the Environmental Statement, including appendices. Proposed environmental management measures are considered in Section 4. An environmental constraints plan has been produced for the project and is available in **Appendix 2**.

3.1 Residents and local amenities

The following residential and local community receptors were identified as being in the vicinity of the Site boundary through desk based study:

- Margam residential estate approximately 1km east of the Site boundary;
- Port Talbot town centre located approximately 5km north of the Site boundary;
- Eglwys Nunydd reservoir located approximately 2km east of the Site boundary;
- National Cycle Network Route 4 approximately 1km east of the Site; and
- Longlands Lane PRoW along the southern Site boundary;

The sensitivity of each receptor to various construction activities will depend on location and proximity to the Site and identified transport routes, however, it is anticipated that the following environmental issues could be of concern if not appropriately managed:

- Potential nuisance including:
 - Mud on roads spread by construction traffic;
 - Excessive or poorly directed light; and
 - Litter.
- Dust and fumes from transport and construction activity;
- Noise and vibration from transport and construction activity;
- Traffic and transport disruption;
- Disruption to business; and
- Reduction of access to amenity space.

3.2 Air quality

Atmospheric emissions from construction activities will depend on a combination of the potential for emissions (the type of activity and prevailing conditions) and the effectiveness of control measures. In general terms, there are two sources of emissions that will need to be controlled to minimise the potential for adverse environmental effects.

- Exhaust emissions from site plant, equipment and vehicles; and
- Fugitive dust emissions from site activities.

3.2.1 Exhaust emissions from plant and vehicles

The operation of vehicles and equipment powered by internal combustion engines results in the emission of exhaust gases containing the pollutants Nitrogen Oxide (NO_x), Particulate Matters less than 10µm (PM₁₀), volatile organic compounds, and carbon monoxide (CO). The quantities emitted depend on factors such as engine type, service history, pattern of usage and fuel composition. The operation of site equipment, vehicles and machinery will result in emissions to atmosphere of exhaust gases, but such emissions are unlikely to be significant, particularly in comparison to levels of similar emission components from vehicle movements on the surrounding highways network.

Construction traffic is likely to comprise haulage / construction vehicles and vehicles used for workers' trips to and from the Site.

3.2.2 Fugitive dust emissions from construction works

Fugitive dust emissions arising from construction activities are likely to be variable in nature and will depend upon the type and extent of the activity, soil type and moisture road surface conditions and weather conditions. Periods of dry weather combined with higher than average wind speed have the potential to generate more dust.

Construction activities that are the most significant potential sources of fugitive dust emissions are:

- Earth moving, due to the handling, storage and disposal of soil and subsoil materials;
- Construction aggregate usage, due to the transport, unloading, storage and use of dry and dusty materials (such as cement and sand);
- Movement of heavy site vehicles on dry or untreated haul routes; and
- Movement of vehicles over surfaces where muddy materials have been transferred off-site (for example, onto public highways).

Fugitive dust arising from construction and demolition activities can potentially impact upon human health.

Proposed measures to manage potential impacts of air quality and dust emissions during construction are detailed in **Section 4.3** and **Section 4.5.3**.

3.3 Noise and vibration

Construction phase noise impacts arising from equipment, vehicular movements and processes related to the construction of the Proposed Development have the potential for a short-term impact on nearby sensitive receptors, including:

- Residential receptors: the nearest residential areas to the north, east and south of the development site include properties at Lower West End, Prince Street, Clos Y Wern, Knights Road, Byass Street, Longlands House, Cross Hill, Water Street, Eglwys Nunydd, Maudlam and Margam Crematorium. Long-distance propagation of noise over water bodies will also be considered, specifically related to any potential noise effects on the nearest residential receptors to Port Talbot located at the Swansea and Mumbles areas.
- Non-residential receptors: non-residential receptors, located further away from the Site, include 'Talbot Memorial Park' and 'Vivian Park', quiet areas ref. EN10/7

and EN10/8 as included in the Neath Port Talbot County Borough Council Local Development Plan.

Proposed measures to manage potential impacts of noise during construction are detailed in **Section 4.5.1**.

3.4 Ecology

3.4.1 Designated sites

The Site boundary is not located within any statutory sites for designated ecological interests, however the following sites have been identified within 5km of the Site boundary (**Table 3-1**). The non-statutory Site of Importance for Nature Conservation (SINC) Neath Port Talbot Watercourses is located within the Site boundary.

Table 3-1: Statutory and non-statutory designated sites

Site	Designation	Approximate distance from the Site boundary
Kenfig/Cynffig	Special Area of Conservation (SAC)	1.4 km
Margam Moors	Site of Special Scientific Interest (SSSI)	Adjacent to south of the Site boundary
Eglwys Nunydd Reservoir	SSSI	310 m
Kenfig/Cynffig	SSSI	1.4 km
Kenfig Pool and Dunes	National Nature Reserve	1.4 km
Kenfig Pool and Dunes	Local Nature Reserve	1.4 km
Eglwys Nunydd	SINC	310 m
NPT Watercourses	SINC	Within site boundary
Junction 38 Wetland Complex SINC	SINC	335 m
National Forest Inventory	National Forest	Two areas within the Site boundary, and a further six areas located within 1km of the Site.
Ancient Woodland	Ancient Woodland	Within 5 km

3.4.2 Habitats

Habitats on site include open mosaic habitat (comprising scrub, ephemeral short perennial and bare ground), together with open water and reedbed, semi-improved neutral grassland, broadleaved plantation and coastal floodplain grazing marsh. No significant effects on habitats as a result of the Proposed Development have been predicted.

3.4.3 Protected and notable species

A programme of baseline ecological surveys were completed between September 2021 and May 2024, and the following species were recorded on site:

- **Breeding birds:** Including Cetti's warbler, which is protected under Schedule 1 of the Countryside and Wildlife Act. Possible nesting by another Schedule 1 species, Peregrine, was recorded on a gas holder adjacent to the western side of the red line boundary.
- **Wintering birds:** Comprising species typical of the habitats found on-site.
- **Invertebrates:** Moderately high invertebrate fauna, including a low number of localised and specialised species; 15 of these currently have nationally significant statuses.
- **Badger:** One outlier sett (one entrance) with low activity levels recorded, 30m from the nearest proposed infrastructure. Several latrines were also recorded.
- **Slow worm, common lizard, and grass snake.**
- **Static and transect bat activity surveys** identified a total of five species / species groups present within the red line boundary, however no roosting bats were identified within the red line boundary.

Controls will be put in place during construction through the full CEMP, Species Protection Plan and appointment of an ecological clerk of works (ECoW) during the construction phase of the project to monitor adherence to such plans.

3.4.4 Invasive non-native species (INNS)

The ecological survey work to date has identified several isolated stands of Japanese Knotweed in the northern extent of the red line boundary. This invasive species could be disturbed and potentially spread across the construction site causing incidental damage to the habitats when site clearance works commence, in particular the removal of vegetation and topsoil. Control measures will be put in place as part of the full CEMP, and will include a proposed precautionary working method statements (PWMS), and proposed control methods.

Proposed measures to manage potential impact on ecology during construction are detailed in **Section 4.6**.

3.5 Water resources and flood risk

The Site is located directly adjacent to Swansea Bay / Bristol Channel along its south-western boundary.

There are two Main Rivers within 5 km of the Site: the River Afan (Afon Afan) to the north and the River Kenfig (Afon Kenfig) to the south. There is a network of small ditches and drainage channels ('reens') to the south-east of the Site associated with Margam Moors.

Named ditches in this area include Lower Mother Ditch and Middle Mother Ditch, though a number of interlinked unnamed ditches are also present. **Figure 3-1** shows the watercourses and waterbodies surrounding the Site.

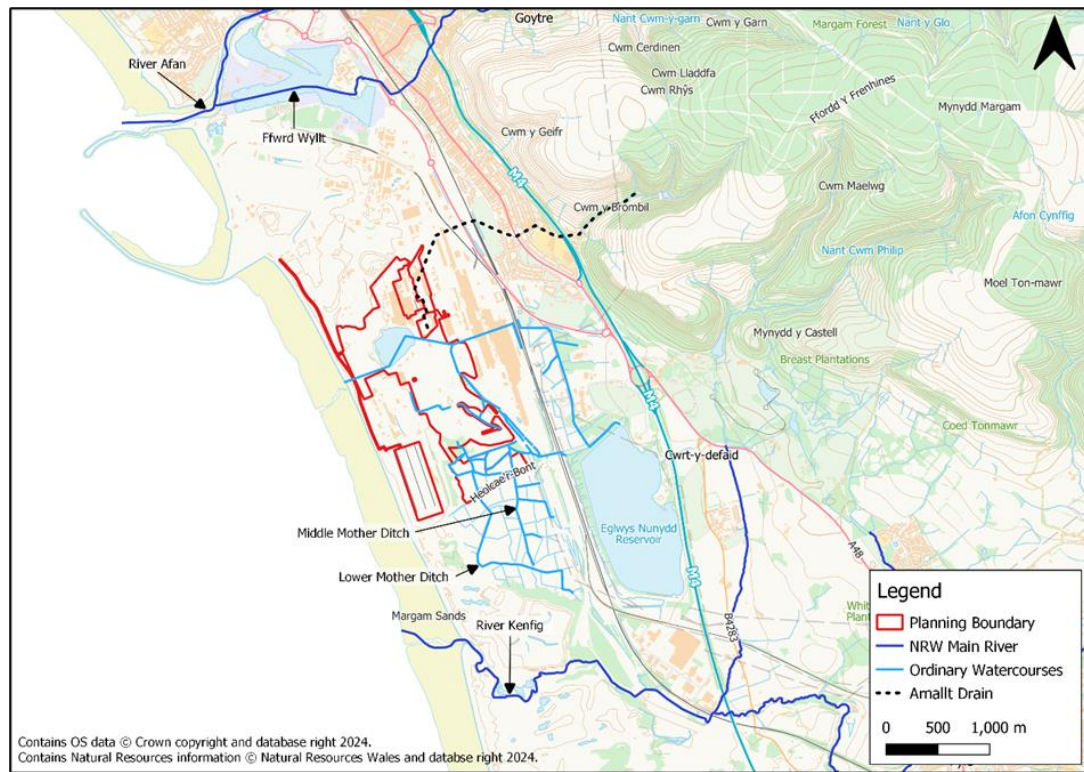


Figure 3-1: Watercourses and waterbodies in and around the Site

A number of waterbodies lie either within the Site or in the immediate vicinity. An operational lagoon is located within the Site. Eglwys Nunydd Reservoir is located to the south-east of the Site bounded to the west by the incoming railway lines and to the east by the M4. The reservoir is a 110ha supply reservoir constructed to provide water for the steelworks.



Figure 3-3, particularly in the operational lagoon situated within the Site which is in Flood Zone 3. The Site is outside of any flood zones for the Flood Map for Planning flood risk from the sea.

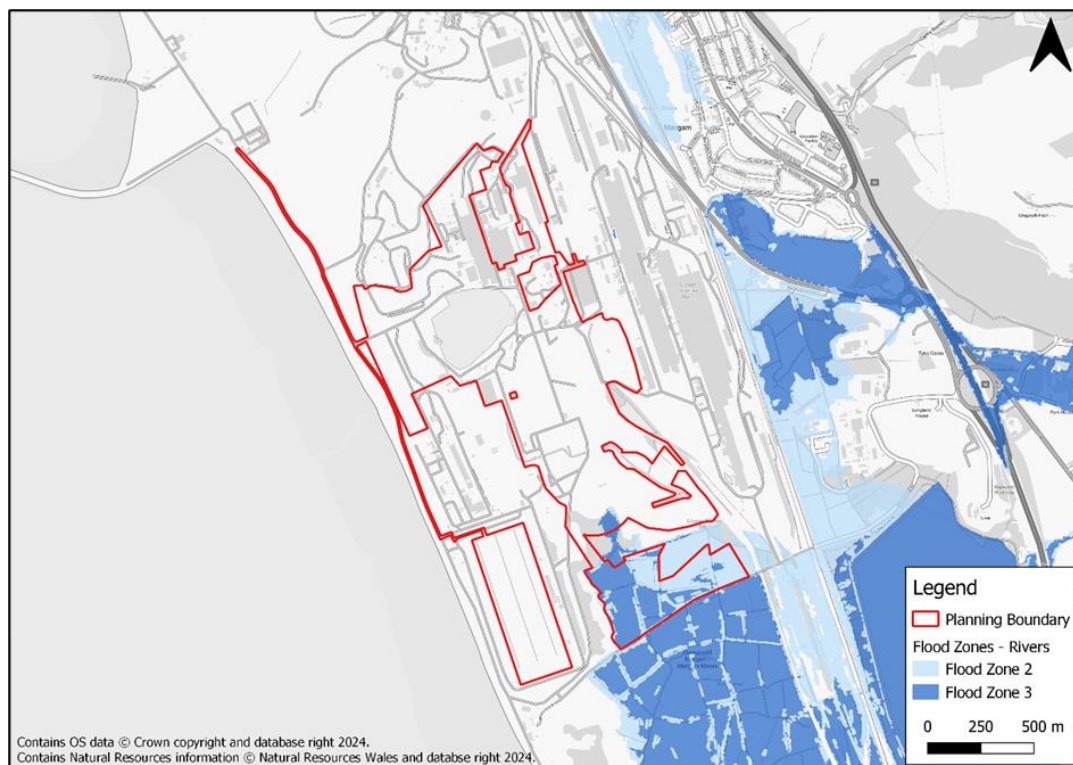


Figure 3-2: Flood Map for Planning – rivers

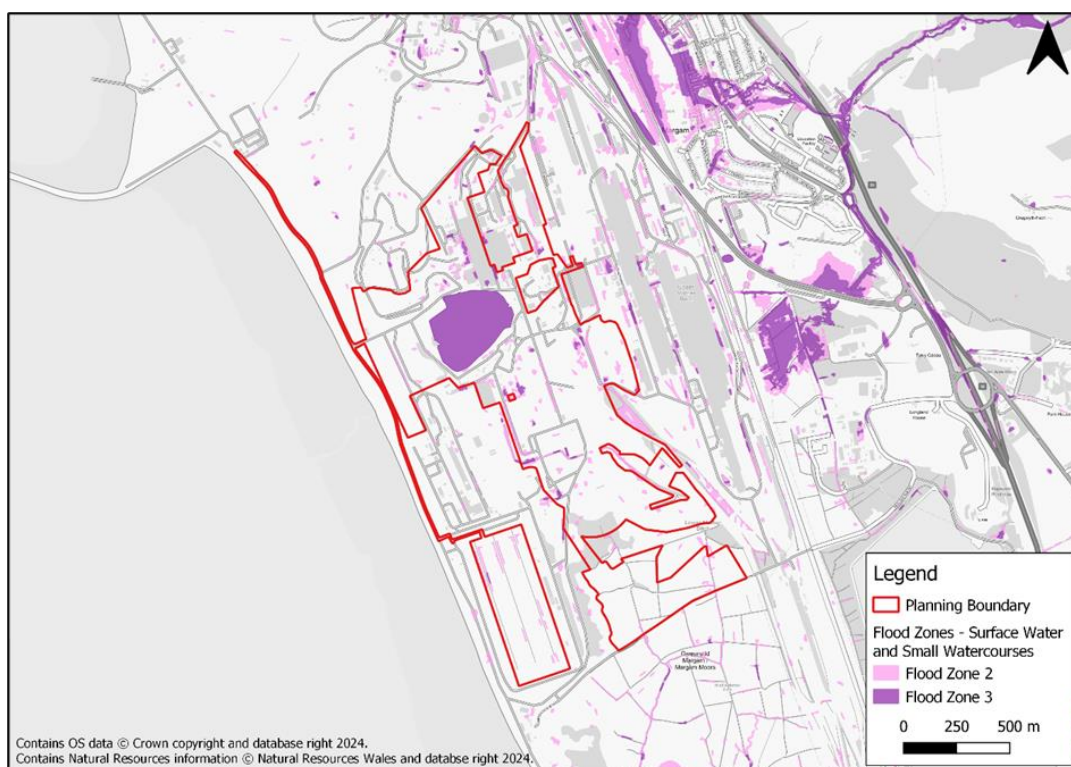


Figure 3-3: Flood Map for Planning - surface water and small watercourses

Measures to manage water pollution, drainage and flood risk during construction are listed in **Section 4.7**.

3.6 Traffic, transport and rights of way

3.6.1 Traffic and transport

The Site is well connected to the surrounding road network, with access to Junction 41 of the M4 in the north and Junction 38 of the M4 in the south, via the A4241 Harbour Way and the A48. There is an internal rail system within the Site and the wider Port Talbot Steelworks, which connects to the main line railway running to the east of the Site.

Existing site access roads will be utilised by cars, vans, HGVs and other specialist equipment to access the main works compound (see **Appendix 1, Images C and D**).

3.6.2 Public rights of way (PRoW)

There are no PRoWs located within the Site boundary, therefore the Proposed Development is not expected to have a direct impact on or result in the closure (either temporary or permanent) of any PRoW. The nearest PRoW is Longlands Lane, located adjacent to the southern site boundary. National Cycle Network Route 4 is located approximately 1km east of the Site boundary.

Traffic management procedures are detailed in **Section 4.8**.

3.7 Waste management

The Site will operate in full compliance with the Environmental Protection Act 1990, the Environmental Protection (duty of care) Regulations 1991, all other relevant legislative requirements and the full CEMP. Wherever possible, a principle of reduce-reuse-recycle will be adopted.

An accurate record will be maintained which details all waste disposal from site such as waste types, quantity of disposal route. The Site will be maintained in a clean, litter-free condition throughout the works.

Measures will be put in place to control pests or scavengers should they be noted during site inspections.

Further waste management measures are listed in **Section 4.9**.

3.8 Archaeology and cultural heritage

There are three non-designated historic assets located within the Site:

- Morfa Colliery (421174): a 19th century colliery with an associated memorial (of Local importance) in the north-western area of the Site;
- Morfa Colliery Gas Works (710277): a private gasworks used to light the colliery buildings.
- Theodrics Grange (20041): a ruined Medieval building of local importance.

Historic mapping indicates that land within the northern half of the Site and the south-eastern extent has been almost entirely previously disturbed through a combination of Post-Medieval mining and modern development of the steelworks and associated railway tracks. However, borehole records indicate a layer of peat below much of the Site which may contain archaeological potential for remains.

Proposed measures to manage potential impacts on archaeology and cultural heritage during construction are detailed in **Section 4.10**.

3.9 Land, soils and ground conditions

The Site is underlain by made ground of varying depths at the surface. Superficial geological deposits underlying the Site comprise a combination of Marine Beach deposits (typically sand and gravel), Tidal Flat Deposits (typically clay, silt and sand) and Blown Sand. Bedrock geology is given as a combination of the Middle and Lower South Wales Coal Measures Formation. Till and Glaciofluvial deposits are noted to be mapped to the east of the Site, with occasional pockets of peat.

The Site is located in a coal mining reporting area according to the Coal Authority and includes a development high risk area.

Whilst the Site is mapped as having sand and gravel minerals associated with the blown sands on-site and Glaciofluvial deposits to the west of the Site, the Site itself is not mapped as within a Mineral Safeguarding Area, as shown on the British Geological Society interactive map.

Bedrock geology underlying the Site is classified as containing a Secondary A aquifer within the South Wales Lower Coal Measures. The superficial Tidal Flat Deposits across the majority of the Site are classified as Secondary (undifferentiated) aquifers. The north-eastern corner of the Site is classified as Secondary A aquifer relating to the 'blown sand' deposits.

Potential geological hazards based on the Site geology and history may include the following:

- Sudden lateral changes in ground conditions;
- Shrinkable clay soils;
- Highly compressible and low bearing capacity soils, (including peat and soft clay);
- Silt-rich soils susceptible to rapid loss of strength in wet conditions;
- Running sand at and below water table;
- Ground subject to or at risk from coastal or river erosion;
- High groundwater table (including waterlogged ground);
- Underground mining including shafts and adits (e.g. coal, mineral);
- Existing sub-structures (e.g. tunnels, foundations, basements, and adjacent sub-structures);
- Filled and made ground (including embankments, infilled ponds and quarries); and
- Adverse ground chemistry (including expansive slags and weathering of sulphides to sulphates).

Proposed measures to manage potential impacts on land, soils and ground conditions during construction are detailed in **Section 4.11**.

4 ENVIRONMENTAL MANAGEMENT MEASURES

This section outlines the environmental management measures that are proposed to avoid or reduce environmental impacts associated with the construction works. The measures listed should be refined and, if necessary, expanded upon in liaison with the Principal Contractor when producing the full CEMP.

Environmental management measures shall be incorporated into the Risk Assessment and Method Statements (RAMS) prepared by the Principal Contractor. All RAMS shall be communicated to the workforce by the Site Manager.

4.1 Fuel storage and refuelling

Fuel storage and refuelling will be managed as follows during construction. Regular toolbox talks will be delivered to the workforce to highlight awareness in best practice regarding fuel storage and re-fuelling.

4.1.1 Fuel storage

- Fuel levels shall be monitored and recorded regularly (sudden changes may be a sign of leaks).
- Fuel tanks, secondary containers and storage compounds shall be inspected regularly for damage, corrosion, leaks, faults and vandalism. Repair defects/faults immediately and retain records.
- The secondary containment system must provide storage for at least 110% of the tanks maximum capacity and ensure that any valves, filters, sight gauges, vent pipes or other ancillary equipment are also situated within the secondary containment system and arranged so that any discharges would be contained.
- Fully lockable and labelled 'Fuel Safe Static Tank' will be deployed.
- Sufficient spill kits will be provided. Spill kit supply to be monitored regularly to ensure adequate stock remains full.
- Spill kits will be available within each plant on site and located close to identified pollution sources or sensitive receptors (fuel storage areas, water course crossings, etc.).
- The Site management team will ensure sufficient staff are trained in use of spill kits and other pollution prevention measures.
- Static plant will be used with secondary containment measures, such as plant nappies, to retain any leakage of fuel or oil and reduce the risk of pollution;
- All drains located adjacent or near to refuelling points shall be covered by a drain guard before commencing transfer. All fuel transfers to be supervised.
- Drums must be stored in a secure interceptor drum store within the designated refuelling area.

- Oil spill and oil impacted water must be collected in a fuel safe container with fuel tags. Fuel spills must be contained using the spill kits provided, spills should be reported to the contractor's Site Manager immediately.
- Records must be maintained of all environmental incidents, mitigation works, clean up method and validation.
- A suitable container for hazardous wastes must be provided within the waste compound.

4.1.2 Refuelling

- Where possible, refuelling should only be carried out in a designated area, which will be secured / locked out of hours.
- The dedicated refuelling area shall be bunded to ensure no run-off pathways onto the adjacent vegetation and located at least 50m away from any watercourse.
- Areas of permanent waste oil / fuel / chemical storage will be located 50m away from watercourses or drainage paths. Where this is not possible, advice will be sought from the ECoW.
- Refuelling will always be supervised by a competent supervisor.
- Mobile plant must be refuelled away from surface waters, drains, permeable pavements and open excavations. A fuel drip tray must be used.

4.2 Use and storage of hazardous materials / substances

The use and storage of solvents, cements, adhesives, grout and concrete shall be managed as follows during construction:

- Concrete wash-out on site shall only be permitted when the Principal Contractor has provided a designated, suitably prepared wash-out area with signage identifying the area as suitable for wagon wash-out.
- Concrete wash-out may be dried and crushed to be re-used on Site or disposed of in accordance with a Site Waste Management Plan.
- Surplus dry concrete, cement and grout is to be collected and reused where possible e.g., as inert rubble; reuse of dried materials may require environmental permits or exemptions.
- Areas of permeable pavements are not to be used for the temporary storage of cement bags. If unavoidable ensure adequate protection measures are in place to prevent the pavement from becoming blocked.
- The Principal Contractor is responsible for carrying out a risk assessment of each substance and ensuring that all appropriate storage, protective equipment and if necessary, emergency procedures are put in place on site.
- All hazardous materials shall be labelled, sealed and stored with their Control of Substances Hazardous to Health (COSHH) assessment in a bunded and lockable container away from drains and watercourses when not in use.

- COSHH datasheet will be read and understood before using any hazardous materials.
- Any spent (contaminated) spill kits, absorbent granules, sheets or fibres must be disposed of in accordance with COSHH regulations and Site Waste Management Plan requirements.
- Hazardous liquids shall be transferred using a funnel and drip tray and sealed and returned to the container immediately after use. Damaged containers shall be reported to the Site Manager.
- All usages shall comply with its requirements.
- Hazardous liquids must be re-sealed after use. Empty containers are to be disposed of to the designated container within the waste compound.
- Construction workers are required to wear PPE such as gloves and face masks (where appropriate) to prevent dermal contact and inhalation or ingestion.

4.3 Use of plant and equipment

- Mains electricity shall be used where available. If not, generators are to be used and must be sized for the required output, if it is diesel they must be set up by the supplier.
- All plant shall be suitably maintained and noise screens shall be used where required. Generators with a sound power level rating above 65 db(A) will have additional mitigation installed (e.g. shrouds or silencers) and exhausts will be positioned away from site boundaries and occupied areas when in use.
- To assist with noise attenuation, where possible, generators will be located away from adjacent residents, also taking account of prevailing wind conditions.
- Siting of portable generators must consider proximity to sensitive receptors (e.g., >10m from a watercourse and >50m from a spring, well or borehole) and must be fitted with a drip tray.
- Turn off all plant overnight.
- All equipment shall be inspected before use and any defects / faults reported to the Site Manager.
- Vehicle / plant refuelling in designated compound / areas.
- Exhaust systems will be fitted with particulate filters and catalytic converters as necessary.
- Sufficient spill kits shall be provided. Kit must be replenished as required.

4.4 Site set up, groundwork and construction

Groundwork and construction will be managed as follows during construction:

- NPTC will be liaised with to determine whether consents are required for construction activities. The Principal Contractor and operatives must be informed of consent conditions.

- Minimise the use of builders' skips and inspect lifting and locking points, doors and door locks and general condition weekly as minimum.
- Ordered materials shall be adequately managed to avoid spoilage or overordering and surplus materials shall be minimised: provide a suitable and sufficiently sized materials storage compound that is lockable and provides an above-ground covered area, protected from wind and rain. Encourage the reuse of cut-offs and arrange for suppliers to take back unused surplus materials and packaging.
- Storage compounds will be located away from any identified water features.
- Surplus materials are to be reused on site where possible. All reuse and recycling to be carried out in accordance with the terms of a valid waste exemption or voluntary codes of practice / protocols.
- Excavated material surplus shall be minimised so far as practicable; details of all inert material reuse on site including composition and disposal location must be mapped and records retained.
- If necessary temporary bunding and / or settlement ponds will be installed to allow for isolation and onsite treatment of any sediment laden or contaminated water prior to discharge to the drainage system.

4.5 Nuisance and disturbance

Noise, artificial lighting, dust / mud, water pollution and litter have the potential to cause nuisance and in some cases complaints and statutory nuisance and therefore must be minimised. The following processes and procedures shall be implemented to manage potential nuisance issues.

4.5.1 Noise

- All work will be carried out where possible in accordance with BS 5228-1:2014 – Code of practice for noise and vibration control on construction and open sites.
- Plant shall be selected with noise levels in mind and it is important that quiet plant or silent plant is used. If possible, electrically powered plant should be used.
- Only plant that conforms to the relevant noise emission standards would be used during the construction of the proposed development.
- Use of acoustic screens or covers where required.
- Noisy works and deliveries to and from the Site shall be conducted within the normal working hours outlined in Section 2.3.4 of this oCEMP. Where necessary, deliveries outside of these core hours would be agreed in advance with the Neath Port Talbot Council.
- If operations involving high noise levels must take place, consideration should be given to the people in the immediate vicinity and such works should be limited to the times which will have least impact on the neighbourhood.

The Control of Pollution Act 1974 (COPA 74) gives local authorities power for controlling noise and vibration from construction sites. If deemed necessary by the Local Planning

Authority (NPTC) a Section 61 consent may be utilised to agree methods, times, duration and noise levels with Tata Steel UK Ltd.

4.5.2 Lighting

- Lighting shall be switched off when not in use unless specifically needed for construction activities or for security and / or health and safety requirements.
- Glare (and the potential for complaints) caused by poorly directed security and floodlighting shall be minimised by ensuring that light fittings are horizontally mounted and directed inwards on site.
- Temporary lighting fixtures are to be installed and designed to provide full cut-off or should be directionally shielded to ensure that artificial light is controlled and substantially confined to the defined area intended to be illuminated.
- Post-installation checks and monitoring of the lighting installations shall be undertaken to ensure that correct tilting angles and appropriate direction of lighting is achieved. This will allow adjustments to be made, where practicable, should undue light spill or glare be identified.
- Wherever possible, lighting shall be located and directed so that it does not cause unnecessary intrusion to adjacent buildings.
- The construction areas close to walkways or roadways shall be lit in an appropriate way to minimise glare and shall be clearly defined at all times to ensure the safety of motorists, cyclists, pedestrians. This will also assist in defining the limits of the construction area for motorists, cyclists and pedestrians.
- Temporary walkways, roads or parking areas shall be illuminated in accordance with current guidance stipulated in the current ILP Guidance Notes.
- Care should be taken to avoid casting shadows from hoarding on the surrounding and adjacent footpaths and roads.
- Light spillage shall be reduced by directing any construction lighting below the horizontal plane, at an angle of less than 70 degrees away from features that offer suitable bat roosting potential.

4.5.3 Dust and mud

Measures which are recommended to address fugitive dust generated by construction related activities are listed below. The measures should be implemented for as long as potentially dusty activities take place. Some of the measures may only be necessary during specific phases of work, or during activities with a high potential to produce dust, and the list should be refined and expanded upon in liaison with the Principal Contractor when producing the dust management plan (DMP) or the full CEMP.

- Any non-road mobile machinery used on-site which were purchased since the Non-Road Mobile Machinery Directive (97/68/EC) (H.M. Government, 1997), including subsequent amendments, will comply with the emissions requirements specified in the relevant legislation.
- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.

- Display the name and contact details of person(s) accountable for air quality and dust issues on the Site boundary. This may be the Environment Manager / Engineer or the Site Manager.
- Develop and implement a Dust Management Plan (DMP) in line with IAQM's Guidance on the Assessment of Dust from Demolition and Construction, which may include measures to control other emissions, approved by Neath Port Talbot Council. The DMP may include monitoring of dust deposition, dust flux, real-time PM₁₀ continuous monitoring and / or visual inspections.
- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to Neath Port Talbot Council when asked.
- Record any exceptional incidents that cause dust and / or air emissions, either on- or off- site, and the action taken to resolve the situation in the log book.
- Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary.
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Agree dust deposition, dust flux, or real-time PM₁₀ continuous monitoring locations with Neath Port Talbot Council. Where possible commence baseline monitoring at least three months before work commences on site or, if it is a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Fully enclose site or specific operations where there is a high potential for dust production and the Site is active for an extensive period.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
- Ensure all vehicle engines are switched off when stationary or not in use to reduce particulate emissions – no idling vehicles.
- Avoid the use of diesel- or petrol- powered generators and use mains electricity or battery powered equipment where practicable.

- Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on un-surfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
- Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the Site for effective dust / particulate matter suppression / mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
- Avoid bonfires and burning of waste materials.
- Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
- Ensure effective water suppression is used during demolition operations.
- Avoid explosive blasting, using appropriate manual or mechanical alternatives.
- Bag and remove any biological debris or damp down such material before demolition.
- Re-vegetate earthworks and exposed areas / soil stockpiles to stabilise surfaces as soon as practicable.
- Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
- Only remove the cover in small areas during work and not all at once.
- Avoid scabbling (roughening of concrete surfaces) if possible.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.

- For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.
- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the Site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
- Record all inspections of haul routes and any subsequent action in a site log book.
- Haul routes are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the Site where reasonably practicable).
- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the Site exit, wherever site size and layout permits.
- Access gates to be located at least 10m from sensitive human or ecological receptors (identified in the ES), where possible.
- All work will be carried out where possible in accordance with Control of Dust from Construction Sites (BRE DTi Feb 2003).
- Plan timing of earthworks and material movements to reduce double handling and minimise traffic movements and therefore associated dust and mud.
- Minimise stripping and stockpiling of soil where possible.
- Keep site roads clear of soil and debris as much as possible.
- All contractor vehicles and private cars are to be parked in the designated area(s) within the Site compound and to be removed from site when not in use.
- If dust levels remain excessively high when adequate control measures are in place and operating effectively, then reduce or postpone works during such times (e.g. during dry or windy periods).
- Water can be sprayed onto material to dampen down any potential contaminated dust and prevent it from becoming airborne.
- Excavated materials undergoing treatment shall be covered to reduce the release of odours and vapours.

4.6 Ecology

The layout of the Proposed Development has minimised impacts to the southern fields and to sensitive habitats (e.g. the areas of soil with the highest peat content and the habitats of highest conservation value) as much as possible. Where avoidance has not

been possible, the infrastructure will be constructed in such a way as to maintain the integrity and connectivity of the hydrology of hydrologically sensitive habitats. Existing vegetation will be retained where possible. An ECoW will ensure measures are put in place to mitigate adverse effects resulting from construction. This will include supervision of activities on site and delivery of toolbox talks.

Construction should take place during daylight hours to minimise lighting required during construction. The lighting design will comply with the Lighting Strategy and use light fittings chosen to limit stray light and minimise impacts on sensitive species. The lighting will also be designed to minimise the visibility from sensitive receptors off-site.

Measures relating to habitats and species present on site, which will be further developed in the full CEMP, are described below.

Habitats

- Existing vegetation would be retained where possible;
- An EcoW would be provided at the construction stage to supervise site works. The ECoW would give regular toolbox talks to make site personnel aware of the ecological sensitivities on-site. The ECoW would have the authority to stop any construction activity that is having or likely to have an unplanned adverse environmental effect, or be in breach of relevant environmental protection legislation;
- Areas of sensitive habitat close to construction areas would be marked by the ECoW to prevent accidental encroachment. Micrositing of infrastructure would be undertaken to avoid the most sensitive habitats and take into account the ecological buffer zones set out in the Ecological Management Plan (EMP). Where micrositing cannot avoid areas of sensitive habitats or features, the ECoW would discuss and agree additional required mitigation to be included in the full CEMP.
- Any land degraded by construction and not required for the operation of the Proposed Development, such as temporary crane pads and borrow pits, would be restored as soon as possible after construction is completed. Where a good ground flora is established, turves would be carefully removed during construction as far as practicable and stored following good practice for re-use in the restoration of areas not required for the operation of the proposed development. Good site management practices would be implemented to minimise the risk of encroachment of the construction corridor into adjacent habitats. Any notable floral species encountered would be marked with an exclusion zone or translocated to other suitable areas of habitat or stored for reuse in reinstatement of temporary infrastructure. The implementation of these measures would reduce the potential for impacts on sensitive habitats.
- In addition, as far as reasonably practicable, materials for construction would be sourced from on-site borrow pits (if required), which would ensure the composition of materials used is as close to the local conditions as possible.
- The pre-construction quality of watercourses and waterbodies would be maintained during construction. Watercourse protection measures contained within the CEMP would be adopted and include protection against siltation and sedimentation, and pollution incidents such as the implementation of a pollution

response plan and the safe storage of chemicals in bunded containers. Robust mitigation measures would be installed prior to works commencing to ensure the impacts on watercourses are minimised. Mitigation throughout the Proposed Development would be regularly monitored and maintained/replaced as required. Monitoring of water quality would be carried out before and during construction.

- The proposed access route will use existing hardstanding tracks. The landscape proposal includes localised screening and areas of new planting which will be planted following construction completion to avoid any possible damage to the newly establishing planting during construction.

Protected species

- The risk of injury or killing would be minimised by measures including proposed PWMS, whilst the habitat creation measures outlined in the LEMP and retention of the scrub and woodland habitat within the blue line boundary (land under Tata Steel (UK) Ltd control) will ensure the continued availability of habitat.
- An ECoW would be present during enabling works and throughout the construction period of the Proposed Development when required. They will be a suitably experienced individual, whose role would be to provide advice so that the works are carried out in accordance with environmental measures detailed in the CEMP / LEMP.
- The ECoW would give regular toolbox talks to make site personnel aware of the ecological sensitivities on-site. The ECoW would have the authority to stop any construction activity that is having or likely to have an unplanned adverse environmental effect, or be in breach of legislation.
- Removal of vegetation, ground clearance and the commencement of construction activities should be undertaken outside of the breeding bird season (considered to be late February to August). 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.
- The ECoW would ensure a PWMS is enforced during construction works to ensure reptiles and their resting habitats are safeguarded. This will include measures such as phased vegetation clearance 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.
- Prior to any vegetation removal an ECoW would 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.

- The ECoW would supervise any works within 30m of the badger sett and a buffer zone will be instated around the sett to ensure no accidental encroachment.
- The full CEMP will include good practice measures, including covering of deep excavations, foundations and pipe openings (or a ramp installed) when not active to prevent entrapment of animals.
- Temporary lighting, noise and vibration during construction could cause adverse effects on commuting and foraging bats. However, these impacts will be minimised by the lighting plans outlined in the full CEMP, which will seek to minimise light spill keeping it highly directional and to enable dark corridors to be maintained along retained areas of open space to ensure foraging conditions maintained for foraging bat species. Noise and vibration would be controlled by no nighttime working to avoid impacts on nocturnal foraging and commuting bats

Invasive non-native species

- The risk of spreading the invasive non-native species would be minimised by measures outlined in the full CEMP, including proposed PWMS, and proposed control methods. This will ensure the control / removal of invasive non-native species from the red-line boundary.

4.7 Water resource and flood risk management

4.7.1 Mitigation measures

The following suggested control measures should be refined in the full CEMP and are subject to approval by NRW as the relevant authorising body and the SuDS Approval Body (SAB) as part of their statutory duties.

- Wherever temporary drainage is required for working platforms and temporary access roads, it will be aligned to the permanent works drainage as much as possible. Otherwise, temporary drainage consisting of local filter drains and earthworks channels will be used to manage surface water runoff. An oil water silt separator (OWSS) or settling tanks and interceptors will be used to protect existing drainage infrastructure from silt and other site debris. This may include use of temporary settlement basins to mitigate the risk of increased flows and sediment loads from construction activities.
- Covering / sealing exposed surfaces to minimise sediment load in runoff. Early re-seeding of cleared land where relevant (not planned as hardstanding) to minimise exposed land and the entrainment of sediment by overland flow.
- Construction plant / materials will be stored on hardstanding surfaces where possible; if this is not possible, the Principal Contractor will ensure any compacted topsoil is loosened as soon as possible following completion of the works and re-seeding.
- Controls on the use of potential pollutants such as cementitious materials.
- Correct storage, handling and use of hazardous substances (liquid and solid). Adequately bunded and secure areas with impervious walls and floor will be provided for the temporary storage of fuel, oil and chemicals on site during construction. Drip trays / plant nappies will be in place to collect leaks from diesel

pumps / standing plant. Oil interceptor(s) will be fitted to all temporary discharge points and for discharge from any temporary oil storage / refuelling areas. Suitable spill kits will be available on site.

- Prevention of runoff from unaffected areas mixing with construction runoff. The relevant sections of BS6031:2009 Code of Practice for Earthworks will be followed and reference should be made to SuDS best practice during construction.
- A 10 m buffer shall be put in place around watercourses present on site.
- Tracking or washing out next to drains / surface waters must be avoided.
- When dewatering, any pump shall be switched off before removing the last portion of water and suspended solids will be allowed to settle out before discharging
- All drains located adjacent or near to generators to be covered with drain guards.
- Potentially contaminated water must be tested before dewatering. Contaminated water must be treated or discharged off site.
- Silty water and associated run-off to surface water and drains must be avoided: minimise any areas of soil stripping and stockpiling, control water volumes used to suppress dust, batter / sheet stockpiles where required.
- Activities associated with the use of construction vehicles (such as washdown facilities) shall be appropriately managed to contain contaminants and regulate the release of water back into the natural environment.
- If a discharge consent is required, then all conditions within the consent must be understood before commencement of dewatering.

Further controls will be incorporated into the full CEMP for operations at a higher risk of pollution to watercourses including but not limited to: dewatering, piling and drainage channel diversion.

The full CEMP will include a requirement for habitat restoration wherever construction activities have resulted in a temporary negative impact on habitats flora/fauna. In particular, this relates to the following areas:

- Grassland re-seeding in the central affected areas of the Site.
- Appropriate bank seeding along areas of channel diversion in accordance with the SuDS drainage strategy.
- Restoration of reens in the coastal floodplain grassland within the Site to the south following National Grid cable laying.

4.7.2 Watercourse consent

The proposed National Grid cable route required as part of the Proposed Development is expected to cross a number of reens in the southern extent of the Site and Margam Moors reens to the south of the boundary. The reen network is a system of ordinary watercourses and their regulation is the responsibility of the Lead Local Flood Authority (LLFA). Ordinary watercourse consents shall be gained prior to any works commencing on the cable routing within the Site boundary. The consent will impose requirements for

construction environmental management to protect water quality features from ecological, chemical and hydro-morphological impacts. Such requirements will form part of the full CEMP.

4.8 Traffic management

The Principal Contractor shall provide for the safe and secure management and control of pedestrian and vehicular movements, both on and off site, to ensure the safety of all members of the general public and workforce at all times throughout the construction work period in accordance with all requisite Acts and Regulations, including, but not limited to the:

- Health and Safety at Work etc Act, 1974;
- Management of Health and Safety at Work Regulations, 1999;
- Construction (Design and Management) Regulations, 2015;
- Supply of Machinery (Safety) Regulations 2008; and
- Provision and Use of Work Equipment Regulations, 1998.

The Principal Contractor shall be responsible for:

- Promotion, management and control of such general provisions and measures for traffic management and control to be implemented by all contractors and sub-contractors throughout the extent and duration of the construction.
- On-site provision for site access roads and pedestrian footways, with controlled access from the public domain for pedestrians and vehicles, on-site parking provisions, standing, lay-down and unloading facilities for delivery vehicles, and on-site compound, welfare facilities and material holding areas for use by all contractors and sub-contractors.
- Ensuring that the on-site provisions are controlled, managed and shall be safe at all times through the provision of planned and informed procedures and segregation between vehicular and pedestrian traffic.

Specific traffic mitigation measures to be refined in the full CEMP include the following:

- A Travel Plan will be provided which will include various measures to encourage existing and new staff to travel via sustainable modes;
- HGVs will be required to route via the M4 Junction 38, and therefore avoid Port Talbot, through the implementation of a Construction Traffic Management and Routing Plan; and
- Signage will be introduced on exit from the Site with repeater signage located just before the roundabout to advise all construction workers when travelling to the M4 to route south to avoid congestion in Port Talbot. It is proposed that the signs will be provided on land under the control of the Applicant (outside of the adopted highway) on the approach to the Main Gate Access junction, for the full duration of the construction period.

4.9 Waste management

The Principal Contractor shall apply the principles of waste hierarchy (eliminate, reduce, reuse, recycle, dispose) to the waste management of the Site. This will be particularly

appropriate with respect to the portions of the Site containing waste and potentially contaminated materials.

The Proposed Development shall seek to promote the re-use of excavated materials through optimisation of cut and fill operations to improve the sustainable and cost-effective development of land, as per the Definition of Waste: Development Industry Code of Practice (DoWCoP). In many instances the DoWCoP can provide an alternative to Environmental Permits or Waste Exemptions when seeking to reuse excavated materials, this is only if the process is followed in full and a Materials Management Plan (MMP) is produced that has been signed off by a suitably qualified person and submitted to CL:AIRE.

Measures to avoid waste issues are likely to include:

- A waste collection area shall be set up before site works start. This area shall be as close to the Site compound as possible with adequate hardstanding for the waste containers and unobstructed access for telehandler and waste removal vehicles.
- Front-end loader (FEL) or rear-end loader (REL) skips shall be provided to segregate wastes including timber and metal. A designated area shall be provided for inert wastes, for example bricks, clay pipes and roof tiles. A designated container[s] shall be provided for hazardous wastes, which and must be clearly labelled.
- Wastes shall be collected by a licensed waste carrier. A copy of all Waste 'Duty of Care' documentation shall be held on site.
- Duty of Care documentation must be completed for all waste transfer copies. They must be signed by a competent person and kept on file in the Site office. Waste transfer notes or hazardous waste consignment notes and Duty of Care procedures are to be audited regularly (monthly as a minimum).
- If required, a Site Waste Management Plan shall be made available on site and its requirements understood by all contractors and operatives before starting work on site.
- Road sweepers shall be deployed as necessary. All road sweepers must be removed from site accompanied with a completed waste transfer note from the driver. If road sweepings are inadvertently discharged on site, these should be disposed of appropriately.
- All waste incidents shall be reported immediately to the Site Manager and environmental advisor.
- Spoil and recycled aggregate transfers shall be carried out in accordance with an approved Materials Management Plan and all transfer tickets must be retained on site.
- Contact the environmental advisor if specialist advice on waste segregation and disposal is required.
- Monthly updates on the amount of waste successfully recycled will be made available to the Site Manager and displayed in the Site office and can also be issued to the council upon request.

Wherever possible, the following waste streams will be diverted from landfill:

- The Site works shall be designed to retain as much soil on site as possible whilst maintaining protection of human health and the environment.
- All timber is to be segregated on site and sent for recycling.
- All metal is to be segregated on site and sent for recycling or retained on site for future use in the Proposed Development.
- All inert waste (e.g. bricks, blocks, concrete) will be segregated on site and used under roads, driveways etc as appropriate.
- All mixed waste removed from site shall be taken to a material recycling facility for further segregation to maximise recycling and recovery.
- All hazardous waste shall be segregated from all other wastes and clearly labelled.
- All other site waste shall be segregated on site.

See Section 4.11 for mitigation measures to reduce issues with waste associated with excavated material.

4.10 Cultural heritage

The programme and scope of mitigation works will be specified by a suitably qualified archaeological contractor in a Written Scheme of Investigation (WSI), which will be agreed with Gwent-Glamorgan Archaeological Trust (GGAT) in advance of construction. The full CEMP will be updated once the WSI has been agreed with GGAT.

4.11 Land, soils and ground conditions

Mitigation measures relating to land, soil and groundwater, which will be refined in the full CEMP, include:

- If appropriate, fencing or screening will be employed to segregate excavated materials prior to re-use or removal from the Site;
- Concrete used for the proposed foundation shall meet the design requirements specific to the made ground soil conditions at the Site. This shall be determined via soil testing from the Site;
- Infrastructure pipes and cables will be laid within suitable, clean backfill material;
- Any new areas of soft landscaping would comprise suitable fill of an appropriate thickness;
- A pollution incident control and emergency preparedness plan will be maintained by the construction contractor and this will consider sensitive receptors identified at the Site;
- The pollution incident control and emergency preparedness plan will include a list of measures and processes to be implemented in the event of environmental incidents;

- Unexpected contaminated soils or contaminated groundwater encountered (i.e. that which was not detected during SI) where appropriate will be separated from other materials and, wherever reasonably practicable, be treated to remove or reduce the risk. Where practical, material will be reused within the Site where it is needed and suitable for use. Contaminated soil disposed of off-site will be taken to a soil treatment facility or an appropriately permitted landfill site; and
- All waste will be managed in accordance with the waste hierarchy which aims to reduce waste at source and to reduce the quantity that requires final disposal to landfill. This applies to excavated material arising on-site, which will be reused within the Site as far as reasonably practicable.

A Materials Management Plan will be developed in accordance with the Definition of Waste: Development Industry Code of Practice to set out the processes to be adopted in respect of the reuse of excavated materials;

- In the event that excavated material is to be sent for disposal, testing and classification will be undertaken by the contractor in line with industry guidance (including Dispose of Waste to Landfill and WM3 – Guidance on the classification and assessment of waste).

A Soil Management Plan will be required, which will include methods to protect soil resources. These should conform to the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009). The Soil Management Plan will include, but not necessarily be limited to, the following:

- Details relating to the separate storage of different types of topsoil, subsoil and mineral substrate should be agreed and defined in advance;
- A requirement that, prior to removal and storage, the topsoil should be either bare or with short surface vegetation;
- Soil stripping should follow the guidance in the Defra Code of Practice (2009);
- Soil stockpiles should be constructed in accordance with Defra guidance, and not be within 8m of surface water features;
- Stockpiles should be maintained by seeding to protect against erosion, minimise nutrient loss and maintain biological activity;
- Soil reinstatement should be completed to restore the land to the original quality by returning the soil elements in the correct order and ensuring that drainage and root development will be optimised; and

5 GENERAL ENVIRONMENTAL REQUIREMENTS

5.1 Roles, responsibility and authority

The Principal Contractor shall make available sufficient time and resource for the effective management of environmental risks that could arise during construction work. This includes appointing adequately qualified personnel with knowledge and capability in the environmental management of construction site works. The Principal Contractor will define project roles and responsibilities associated to the environment, in the full CEMP.

Persons having responsibility for environmental site management, and in particular any persons required to undertake and oversee response to any incidents with potential environmental consequences, shall be empowered to make decisions and take appropriate action where necessary to avoid or mitigate adverse environmental effects, even when this may lead to delay and / or additional cost to the Principal Contractor.

5.2 Competence, training and awareness

The Principal Contractor shall ensure that appropriate awareness training is delivered to all site operatives and only appropriately qualified sub-contractors are appointed.

Every member of the workforce shall be required to participate in a site induction prior to starting work on the Site. The level of induction training will depend upon the position and duties the person is to perform. The Site induction will include:

- A brief overview of the works to be undertaken and any potential environmental aspects associated with the construction activities;
- A summary of the sensitive environmental receptors near the Site;
- An overview of the applicable environmental mitigation and pollution control measures; and
- An overview of the health and safety management measures in particular emergency response procedures required at the Site.

Tata Steel UK Ltd will require its Principal Contractor to provide ongoing training and awareness raising of the workforce. This can be delivered in the form of Toolbox Talks tailored to the specific environmental mitigation measures required dependent on the work activities being undertaken and to raise awareness on environmental best practice.

Records of all inductions and Toolbox Talk deliveries shall be maintained at the Site office. Copies shall be made available to Tata Steel UK Ltd on request.

5.2.1 Internal communication

The Principal Contractor's Site Manager, environmental advisor and other relevant team members shall meet at defined intervals to review the status of environmental aspects including but not limited to:

- Works activities underway and planned;
- Mitigation measures required to be implemented;
- Results of regular inspections and any audit results / feedback;

- Any corrective and preventative actions required to be implemented;
- Identification of areas for continual improvement;
- Status of staff competence and training needs; and
- Status of the full CEMP and of any required consent and approvals and the need for review and updating.

Tata Steel UK Ltd shall be informed of the outcome / minutes of all such meetings.

Additional and ongoing communication of environmental performance and requirements is to be determined by the appointed environmental advisor and provided as appropriate.

5.2.2 Notice boards

The Principal Contractor will provide and maintain project environmental notice boards which are positioned to ensure all operatives are able to review the notice boards on a daily basis. The notice boards should be updated at least monthly. As a minimum, the notice boards shall contain:

- Tata Steel UK Ltd's environmental policy;
- Emergency contacts list;
- Relevant statutory and non-statutory advice and guidance; and
- Description of the key environmental risks and intended risk mitigation measures.

These environmental notice boards will be situated in prominent positions including the main reception area of the Site office.

5.2.3 Toolbox talks

Toolbox Talks will be used to inform all site personnel of key information concerning the management of the Site, procedures to be followed and expected standards / controls when working on the project. The Toolbox Talks will cover a broad range of topics including those related to best practice environmental management.

A record of Toolbox Talks will be kept on site, stating date, description of non-conformance, potential implications, proposed corrective actions, individual responsible and target data. Toolbox Talks shall include, but will not be limited to, instances where:

- There is a change to existing legislation, which requires an operation change;
- Site inspections or audits have identified corrective actions which require communicating; and
- There are significant changes in environmental conditions i.e. heavy rainfall.

The frequency and topics of the Toolbox Talks shall depend upon the phase construction. They shall be provided as often as necessary to address site-specific environmental requirements.

5.2.4 External communication

The Principal Contractor, with the agreement of Tata Steel UK Ltd, shall provide advanced notification of the works to those most affected. All local residents and where relevant businesses shall be notified via letter of the works commencing at least two weeks prior to contractors starting on site.

The Principal Contractor may appoint a Liaison Officer to deal with external enquiries and / or complaints; the Principal Contractor may also set up a 'hotline' number and / or email to receive calls / emails during the construction period.

On receipt of any communication, the Principal Contractor and Tata Steel UK Ltd shall assess the complaint and determine what information is required from all parties to formulate a response. The Principal Contractor will endeavour to contact the complainant on the same day. All complaints shall be recorded and investigated.

The Principal Contractor's Site Manager shall serve as the point of contact for the regulatory authorities for their specific activities. Communications from the regulatory authorities received at the worksite by the Site Manager shall be immediately reported to Tata Steel UK Ltd.

A record of all communications shall be maintained by the Principal Contractor.

Through the induction all members of the workforce shall be made aware that any direct approaches from member of the public should be directed to their Site Manager. The Site Manager shall record all approaches made by members of the public and shall advise Tata Steel UK Ltd's Project Team of all comments received at the worksite from members of the public.

5.3 Documentation

The Site Manager and / or work environmental advisor shall be responsible for documenting and retaining all suitable records relating to environmental issues at the Site and / or arising from site operations. Documents shall be stored in a suitable manner and backups created to safeguard the records. The full CEMP shall be a controlled document and the authorised latest version shall be signed and dated by the responsible person(s). Other site data records and environmental management document would include, but not necessarily be limited to, the following:

- Copies of relevant consents, permissions, or other approvals / authorisations;
- Environmental data records including waste transfer notes/records of waste collection and treatment / disposal;
- Records of any environmental incidents including actions taken and resolution;
- Records of all plant / equipment entering / leaving site together with any relevant compliance documentation (for instance in respect of noise or air pollutant emissions class);
- Copies of any enforcement notices or instructions issues by the local authority or statutory regulatory body;
- Record of any prosecutions pending or resolved, and any penalties enforced;
- Records of regular site inspections;
- Records of regular audits and minutes of environmental team briefings; and
- Records of staff training including site inductions and toolbox talks.

5.4 Monitoring, inspections and audits

The Principal Contractor shall be responsible for managing environmental performance during all site works. This will be supported with a programme of monitoring, inspections and audits.

5.4.1 Inspections

Inspections shall be undertaken at defined intervals by the Principal Contractor and recorded as follows:

- i. Visual inspection of the Site perimeter to check for dust deposition (evident as soiling and marking) on vegetation, cars and other objects.
- ii. Visual inspection of the local haul roads to check their condition to ensure there is no build-up of dust or earth deposits liable to cause dust emissions as vehicles pass.
- iii. Vehicles, equipment and plant inspections shall be completed to check the absence of damage or maintenance issues and that it is correctly functioning.
- iv. Visual inspection of all acoustic barriers / screening to check they are present and in good condition.
- v. Visual inspection of waste containers and waste storage areas to verify wastes are being correctly segregated and to confirm the absence of mixing of hazardous and non-hazardous wastes.
- vi. Visual inspection of all site areas to ensure there is no deposited or wind-blown litter.
- vii. If a waste collection is made, a check shall be made of the Waste Transfer Note / Hazardous Waste Consignment Note provided for the collection.

On all days when potentially dust emitting activities are being conducted, the level of dust generation shall be kept under constant review. A record shall be added to the official site diary when such activities are conducted, the dust emission conditions observed and when necessary, the mitigation measures taken.

Any elements of the Site management found to be in an unsatisfactory condition during the Site inspection shall be addressed on the day. In the event it is not possible to address the matter on the day it is raised; a note of the reason why shall be made on the inspection record sheet.

5.4.2 Audits

Only suitably trained and competent staff will be authorised to perform environmental audits.

Audits of the worksites and Contractors shall be undertaken by or on behalf of Tata Steel UK Ltd at a suitable frequency to be determined by the nature / duration of the work. All aspects of the environmental management at the Site shall be assessed against the full CEMP. The audit shall include checks of the Site records including the daily inspection record sheets, vehicle arrival logs and waste disposal paperwork. All audits shall be documented; where audit actions are raised, close out of these actions shall be assessed at the following audit.

An audit of an Environmental Management Process will be undertaken throughout the project duration and will typically cover the activities identified in the above chapters.

5.4.3 Non-conformity and corrective action

Where Tata Steel UK Ltd has a concern or raises an issue for resolution, or where potential issues are raised from an inspection or audit of the Site / operations, or by a

regulatory authority, the contractor shall investigate the root cause and any implications arising from the issue and shall if necessary following discussion with Tata Steel UK Ltd implement measures to rectify the problem.

The contractor shall monitor the effectiveness of the corrective action and report the outcome to Tata Steel UK Ltd and where relevant the regulatory authority. All documentation of the issue / event and corrective action / outcome shall be retained by the contractor.

Where necessary the full CEMP and any associated documentation shall be revised and re-issued to avoid recurrence of the issue / problem.

5.4.4 Data reporting

At defined intervals, the Principal Contractor may be required to submit to Tata Steel UK Ltd all relevant data on the following:

- Energy usage (i.e. electricity meter readings and diesel generator fuel used / delivered to site);
- Water consumption (i.e. water meter readings or bowser water deliveries to site);
- Waste collections; and
- Heavy Duty Vehicles entering / leaving site.

The Principal Contractor shall comply with any additional reporting requirements that may be introduced through the conditions of any agreements or permits.

5.5 Review and updates

5.5.1 CEMP reviews

The Site-wide full CEMP will be reviewed every 6 months as a minimum, or following any significant change to the work activities, Tata Steel UK Ltd requirements or legislation.

5.5.2 Management review

A management review of the performance of the Environmental Management System will be undertaken at least every 6 months and will include Tata Steel UK Ltd's Project Manager and senior management (as a minimum this should include the Project Director, SHEQ Manager and senior corporate representative), and key personnel including the environmental advisor.

Matters such as staffing, training, matters arising from audits and inspections and performance against key performance indicators (KPIs) will be discussed and where there is a shortfall in performance, actions shall be agreed to rectify this.

5.6 Legal and other requirements

Certain aspects of the construction work for this project will be subject to environmental permits, consents, authorisations and permissions.

5.6.1 Environmental consents register

An Environmental Consents Register will be produced and will include a schedule of all consent submissions and a tracker to confirm they are in place for the start of works.

The register will be a live document and shall be reviewed at defined intervals. The Site Manager will be responsible for ensuring resources are available and work is planned to meet the legislative requirements.

APPENDIX 1: INDICATIVE SITE LAYOUTS

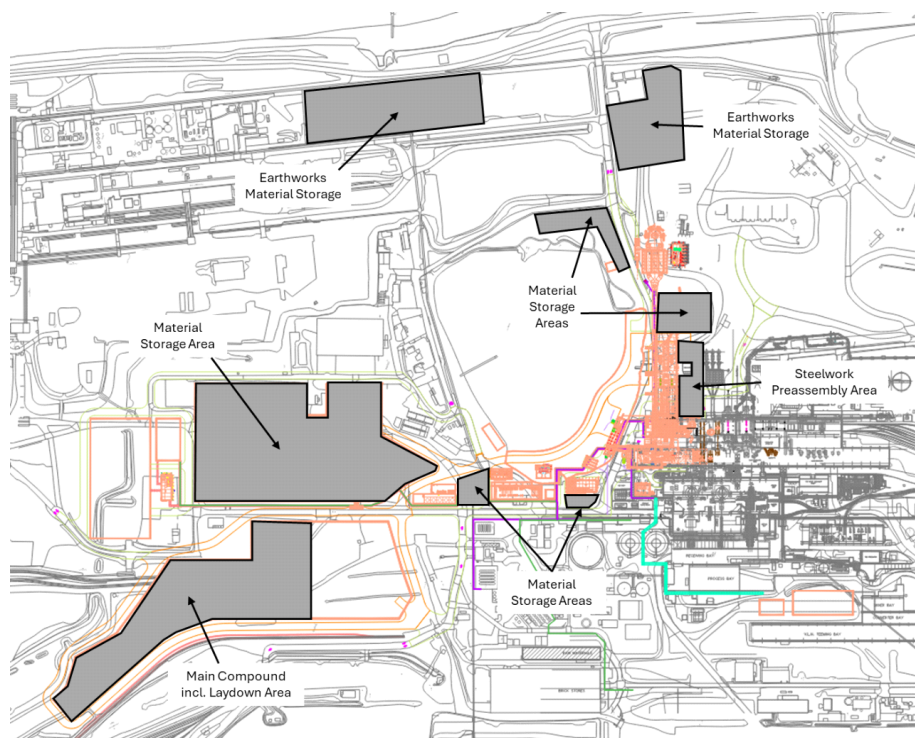


Image A: Indicative compound layout



Image B: Proposed construction lighting

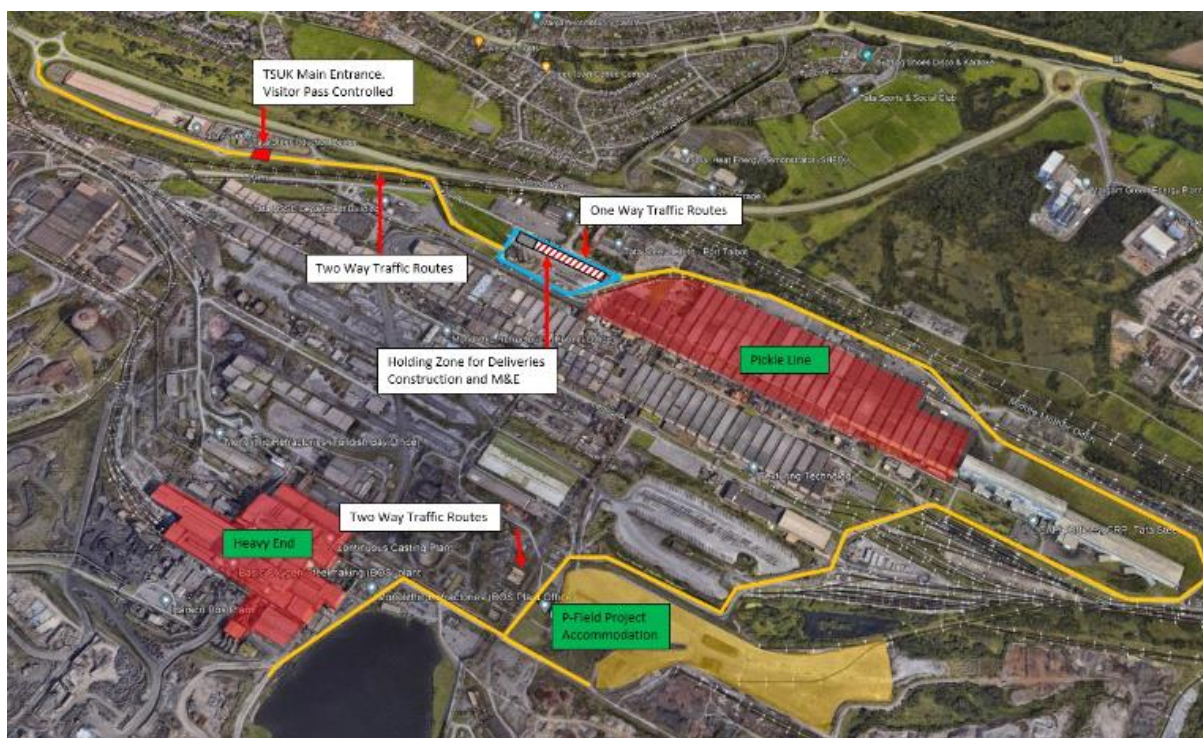


Image C: Proposed haul routes and access

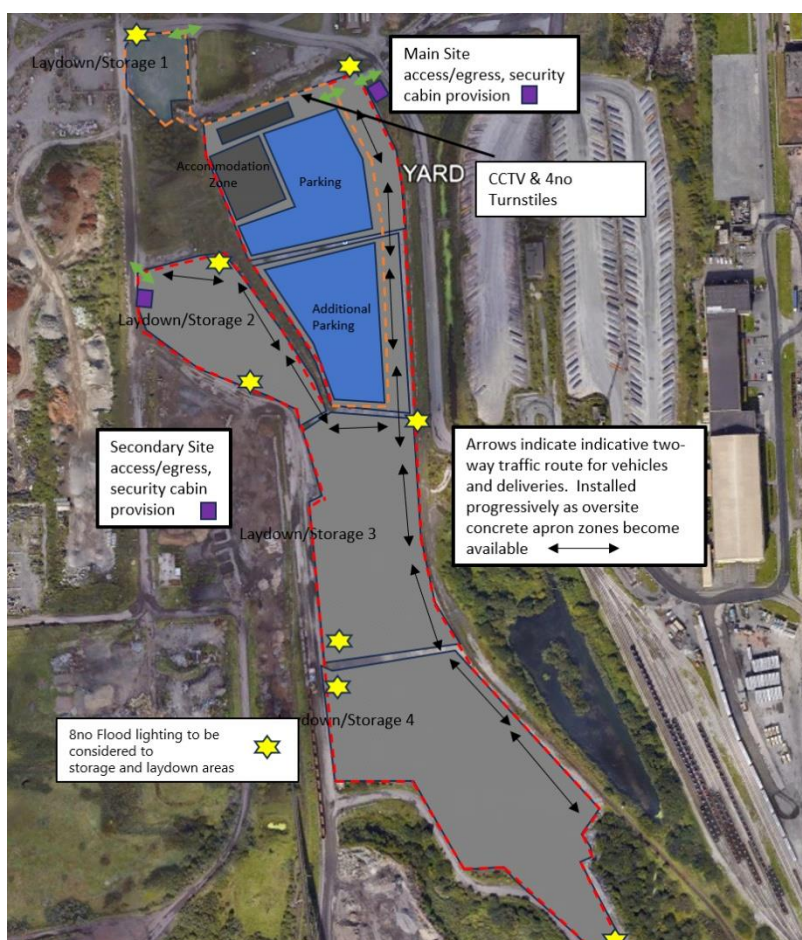
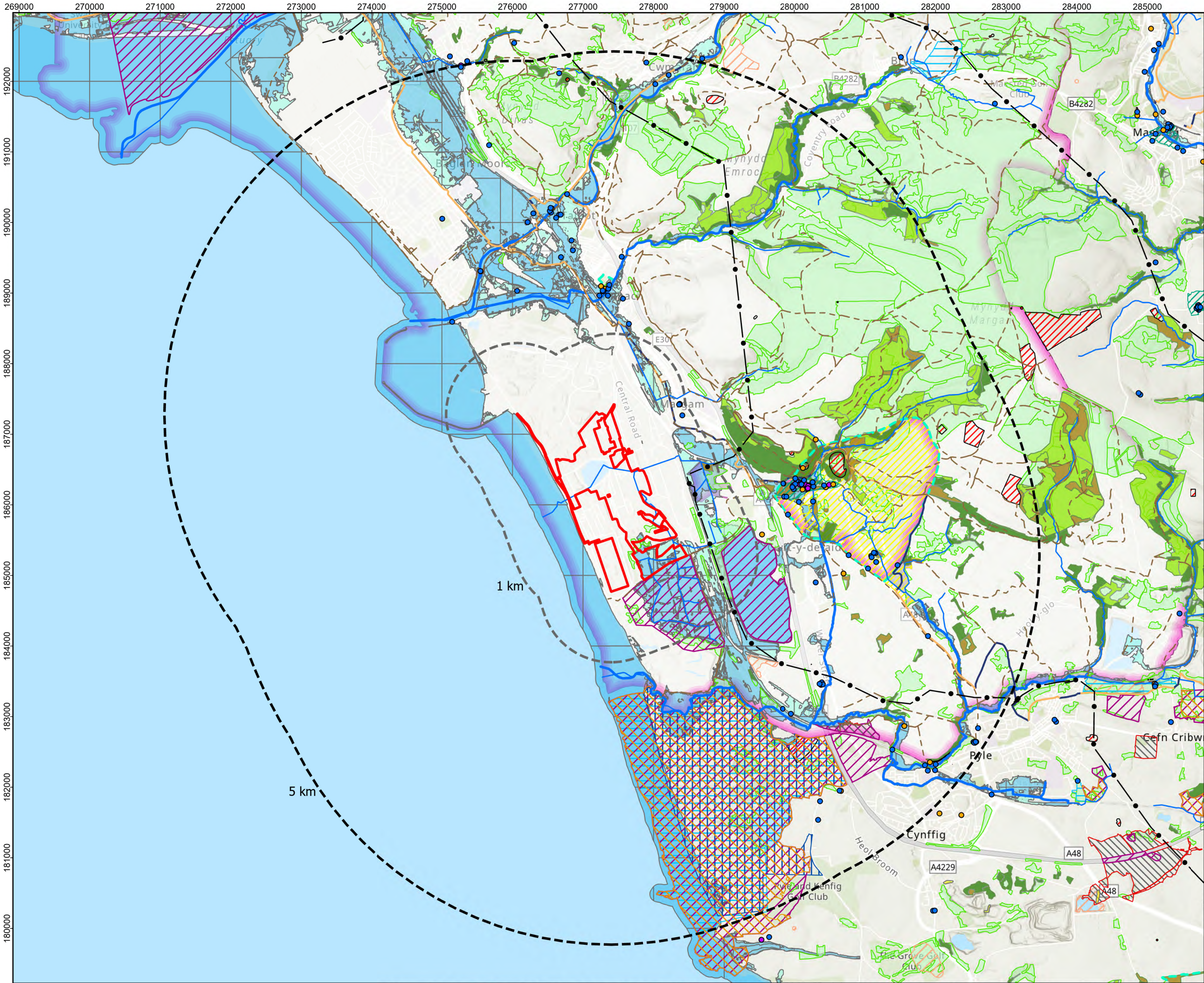


Image D: Indicative site access arrangements and storage

APPENDIX 2: ENVIRONMENTAL CONSTRAINTS PLAN



- Legend:**
- Site Boundary
 - 1km Area of Search
 - 5km Area of Search
 - Grade I Listed Buildings
 - Grade II Listed Buildings
 - Grade II* Listed Buildings
 - National Grid Overhead Line
 - Public Rights of Way
 - National Cycle Network OnRoad
 - National Cycle Network TrafficFree
 - Watercourses
 - Main Rivers
 - Historic Parks and Gardens
 - Regionally Important Geodiversity Sites (RIGS)
 - Special Areas of Conservation (SAC)
 - Sites of Special Scientific Interest (SSSI)
 - Scheduled Monuments
 - Conservation Areas
 - National Nature Reserves
 - Local Nature Reserves
 - Ancient Semi Natural Woodland
 - Ancient Woodland Site of Unknown Category
 - Plantation on Ancient Woodland Site
 - Restored Ancient Woodland Site
 - Registered Common Land
 - Historic Landfill Sites
 - Country Parks
 - National Forest Inventory (2020)
 - Flood Zone 2
 - Flood Zone 3
 - Sites of Importance to Nature Conservation (SINC)

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter



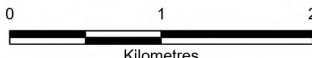
Rev	Date	Description	Drn	Chk	App
01	16/08/2024	Updated RLB	CJ	MM	MC
00	22/05/2024	First Draft	CJ	MM	MC

664195 - Electric Arc Furnace

RSK

TITLE:
Outline CEMP - Appendix 2
Environmental Constraints Plan

ID:P664195_Figure 3.1 - Environmental Constraints Plan



Scale: 1:50,000 @ A3



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