Llanwern Rail Facilities - Phase 1 Planning

Construction Environmental Management Plan (CEMP)

September 2018

367590-WTD-CAR-2654
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Executive summary

Mott MacDonald has been commissioned by Transport for Wales (TfW), on behalf of Welsh Government, to prepare and submit a planning application, seeking full planning permission for the design and construction of a 1.6km long Major Events Stabling Line (MESL) on land adjacent to the existing Tata Steelworks Service Lines in Llanwern, South Wales. This is Phase 1 of the Llanwern Rail Facilities Programme. The Site lies within the City of Newport and is centred at Ordnance Survey Grid Reference ST 36907 87302.

This report sets out the ecological and environmental constraints for the works which includes; designated sites, habitats, species, soil management, watercourse crossings and pollution control. It also details inspection/monitoring and emergency response procedures during construction.

Following the implementation of the safeguarding measures set out, no significant adverse effects on the environment would be anticipated.
1 Introduction

1.1 Project Description

Mott MacDonald has been commissioned by Transport for Wales (TfW), on behalf of Welsh Government, to prepare and submit a planning application, seeking full planning permission for the design and construction of a 1.6km long Major Events Stabling Line (MESL) on land adjacent to the existing Tata Steelworks Service Lines in Llanwern, South Wales. This is Phase 1 of the Llanwern Rail Facilities Programme.

The MESL will be used for stabling of rolling stock for major events in the area, to enable flexibility for future train requirements, and proving of trains prior to use on the rail network. The MESL will be electrified in a future phase of work. This proposed 1.6km length of MESL to the west of Monks’ Ditch was formerly known as Option 6a.

The wider Llanwern Rail Facilities Programme will include an extension of the MESL by circa 2.4km east (to achieve a total length of circa 4km), electrification of the MESL, a new Llanwern railway station and passenger line (including Park & Ride and footbridge), and connections to the South Wales Main Line (Relief Lines). The further phases of the project will be the subject of a subsequent planning application.

The key parameters for the Scheme are listed below:

- Whole Site area is 3.1 hectares. This land is contained within the red line boundary shown on the Site Location Plan (Drawing number 367590-MMD-48-XX-DR-C-0001); and
- The Site length is approximately 1.6km long and 19m wide.

1.2 Scope of Works

The General Arrangement drawings (Drawing numbers 367590-MMD-48-XX-DR-C-0002 to 367590-MMD-48-XX-DR-C-0005) demonstrate the project scope which includes the design and construction of the following:

- A single track stabling line (MESL) circa 1.6km long;
- Associated earthworks and landscaping; and
- Drainage and other engineering works.

In order to obtain full planning permission for Phase 1, we have carried out the outline design and technical assessment of the above scope, as well as multiple assessments in terms of ecology, environment, heritage and archaeology.

1.3 Site Location

The proposed rail development Site is located approximately 8 miles east from the centre of Newport, South Wales (Figure 1.1).

The Site is aligned roughly west – east and bordered by the existing South Wales Mainline to the north and the Tata Steelworks to the south. Along the southern boundary of the steelworks site runs the A4810 which links the M4 from junction 23A at Magor with the A48 at Liswerry (a predominantly residential suburb on the south-eastern side of Newport. The site is more widely bordered by the M4 which runs approximately two and a half miles to the north and the Severn.
Estuary which lays approximately three miles to the south. The Gwent Levels to the south is a significant area of wetlands.

The existing South Wales Mainline passes north of the proposed Site and provides opportunity for transport links for both passengers and freight.

**Figure 1.1: Proposed Location Plan**

![Map showing the proposed location plan](Source: OS Open Data)
2 Ecological and Environmental Constraints

2.1 Designations

2.1.1 Ecological Designations

Five statutory designated sites have been identified within 2.0km of the Site; one Special Area of Conservation (SAC) and four Sites of Special Scientific Interest (SSSI). In addition, there are six SACs designated for bats within 30.0km of the Site. Further details of these designations are provided in the accompanying Ecological Impact Assessment (EcIA) Report (Report Ref: 367590-WTD-CAR-2648).

Furthermore, there are 26 non-statutory designated sites within 2.0km of the Site, all designated as Sites of Importance for Nature Conservation. Details of these sites are provided in the accompanying EcIA Report (Report Ref: 367590-WTD-CAR-2648).

2.1.2 Geological Designations

The geology beneath the Site comprises Tidal Flat Deposits over mudstone and limestone of the Blue Lias Formation. There are no Regionally Important Geological Sites within or adjacent to the Site.

2.1.3 Historic Designations

The Site has no historical designations.

2.2 Habitats and Protected Species

The Site is currently densely vegetated with a mixture of trees and shrubs. There is a network of reens (drainage ditches) crossing the Site and running parallel to the north which drain the area between the service lines and the mainline railway. This east-west system of reens drain into a series of north-south drains which are culverted beneath the service lines and enter the Glan Llyn development site to the south. The reens on-Site are hydrologically connected to the Gwent Levels – Redwick and Llandevenny SSSI and the River Usk SAC. Full details of the habitats on-Site are described within the Preliminary Ecological Appraisal (PEA) Report (Report Ref: 367590-WTD-CAR-2604 B).

A number of habitats within the Site meet the descriptions of habitats listed under Section 7 Habitats of Principal Importance under the Environment (Wales) Act 2016 and the Newport Local Biodiversity Action Plan (LBAP) (Newport Biodiversity Partnership, 2018) and are thus considered to be of elevated ecological value in the local context. Additionally, other habitats are present which although not designated, may offer value to faunal species of interest. These are discussed further in the accompanying Ecological Impact Assessment (EcIA) Report (Report Ref: 367590-WTD-CAR-2648).

The Site and surrounding area provides suitable habitat for wild birds, bats, great crested newts, otters, invertebrates, water voles and dormice which are all protected under the Conservation of Habitats and Species Regulations 2017 (CHSR’17) and the Wildlife and Countryside Act 1981 (WCA’81). The Site may also support badgers that are protected under the Protection of Badgers Act 1992 and other mammals afforded protection under the Wild Mammals Act (1996).
Specific surveys have been undertaken and the findings are reported in the EcIA Report (Report Ref: 367590-WTD-CAR-2648). These findings are documented in further detail in the specific species reports, provided in Appendices B-J of the EcIA Report (Report Ref: 367590-WTD-CAR-2648).

### 2.3 Invasive species

Both Himalayan balsam and Virginia creeper were recorded on-site. These plants are listed in Schedule 9 of the Wildlife and Countryside Act 1981.
3 Ecological and Environmental Mitigation

3.1 Designated Sites

3.1.1 Regulatory Liaison

The Site does not encompass any ecological, geological or historical designated site. However, regulatory liaison will be necessary with regards to the statutory and non-statutory ecological designations that have been identified within 2.0km of the site in the EcIA Report (Report Ref: 367590-WTD-CAR-2648).

3.2 Habitats

The proposed MESL will necessitate the removal of vegetation. Such actions may have impacts on protected and/or notable habitats. These are identified in the EcIA Report (Report Ref: 367590-WTD-CAR-2648) along with the respective mitigation measures. Additionally, mitigation planting will be undertaken to reduce the impact of losing vegetation within the Site. Details of the planting scheme are provided in a habitats and ecology plan being prepared.

3.3 Protected Species

3.3.1 Fauna

The Site and surrounding area provide suitable habitat for protected and/or notable species. The Scheme may have impacts on these species. The impacts of this and respective mitigation measures are documented in the EcIA Report (Report Ref: 367590-WTD-CAR-2648).

3.3.2 Habitats

The Scheme requires vegetation removal. Such clearance works should be scheduled in accordance with the mitigation measures documented in the EcIA Report (Report Ref: 367590-WTD-CAR-2648) to reduce the impact on protected and/or notable species. Moreover, vegetation clearance must be undertaken in accordance with any protected species licences issued.

3.3.3 Soil Management

The Contractor shall, where necessary, remove topsoil and subsoil from the railway corridor and working areas (laydown, compounds, access routes) under dry conditions (when the soil is non-plastic). Soil will be stockpiled for replacement on completion of the works. Due to the presence of Himalayan balsam and Virginia creeper on Site, soil from different areas must be stockpiled separately and can only reused in the area it was taken from.

Trackway may be used to prevent compaction and rutting of the underlying soils along haul routes. If trackway is used, it is recommended that vegetation clearance is followed as per Section 3.3.2 and reptile/newt fencing is installed along the access route to prevent reptiles and newts from sheltering underneath the trackway panels and being crushed.

Any such track material used should be cleaned before being deployed elsewhere on-Site or taken off-Site to prevent the spread of non-native plants species.
3.3.4 Watercourse Crossings

Temporary watercourse crossings may be required for haul routes. Such culverts or bridges shall be designed to convey the appropriate volume of water and liaison with the local authority will be required to determine whether ordinary watercourse consent is necessary prior to commencement of works. The location of the watercourse crossing shall firstly consider the species surveys in order to determine presence/absence of protected species. Any crossings will be decommissioned once no longer required and the watercourse and surrounding areas restored.

3.4 Invasive Species

It is an offense under the Wildlife and Countryside Act 1981 (WCA) to allow the spread of injurious and invasive species into the wild. Allowing such plants to spread onto neighbouring properties can lead to civil action.

Any soil stockpiles must be placed to avoid the risk of off-Site spread of invasive plants. If soil stockpiles have Himalayan balsam growing on them the plants should be pulled in May before flowering to prevent seed dispersal to a wider area. Virginia creeper should be cut back to prevent runners spreading.

In addition, the reens on-Site are hydrologically connected to the reen system within the Gwent Levels – Redwick and Llandevenny SSSI and the River Usk SAC. Stockpiles should be located away from reens to prevent invasive species from entering the reen system during vegetation removal.

All equipment and plant that has come into contact with soil must be cleaned to remove soil before being taken off-Site.

3.5 Lighting

Any lighting deployed during construction will be directional and positioned to reduce light spill into adjacent areas. Lights should not be shined directly onto nearby woodland or watercourses.

It is understood there will be no lighting of the stabling line in the current phase of work. If it is decided that lighting is required by the future users of the Site then, this will form part of future works.

3.6 Control of Pollution

3.6.1 Site Run-off and Flooding

Soil stripping and vegetation clearance will be necessary. Whilst the Site is without notable relief, it is possible that turbid run-off will enter the drainage reens/culverts. The reens on-Site are hydrologically connected to the reen system within the Gwent Levels – Redwick and Llandevenny SSSI and the River Usk SAC. Therefore, it is possible that the proposed works will indirectly affect these designated sites. This will be prevented by implementing silt fences, bunds or other appropriate measures to prevent increased sediment transport in the watercourses.

A Habitats Regulations Assessment (HRA) (Report Ref: 367590-WTD-CAR-2630) has been undertaken as the reens provide an impact pathway to the River Usk.

The Natural Resources Wales (NRW) Long Term Flood Risk Map (2018) indicates the Site mostly benefits from flood defences but still remains liable to fluvial flooding and surface water
inundation. The Contractor shall subscribe to the NRW flood warning service and remove hazardous materials, plant and waste from areas likely to flood in advance of forecast flood events. Bunds or other appropriate barriers shall also be used where possible to prevent floodwater from entering the works area.

The Contractor will also regularly check the Met Office weather service to allow preparation for forecasted heavy precipitation. If surface water flooding is likely, the Contractor shall remove hazardous materials, plant and waste from areas likely to flood in advance.

3.6.2 Wash Water/Wash Down

Wash down and cleaning of equipment shall take place in an impermeable, bunded area. All water shall be captured for re-use. If discharging to watercourse, treatment and monitoring criteria shall be agreed with NRW prior to commencement. If treatment on-Site is not possible, all such waters shall be disposed of off-Site to an appropriately permitted waste facility.

3.6.3 Soil Storage and Stockpiling

No stockpiles shall be placed within 10.0m of any watercourse or drain leading to a watercourse. All non-soil stockpiles shall be compacted and sealed to prevent erosion. Soil and subsoil stockpiles shall be seeded to prevent erosion. Alternatively, geotextile coverings may be used.

3.6.4 Storage and Use of Hazardous Material

Oil and fuel storage shall be in accordance with the Water Resources Control of Pollution (Oil Storage) (Wales) Regulations 2016 and all such materials (including materials which fall under the Control of Substances Hazardous to Health (COSHH) Regulations shall be stored within a designated bunded area with secondary containment. This area and the associated containers shall be located in an area where they are unlikely to come to harm (i.e. area with low risk of collision with vehicles)

Containers shall be of sufficient strength and integrity to ensure that they are unlikely to burst or leak in ordinary use and secondary containment shall have a capacity of not less than 110% of the capacity of the largest container, or 25% of the total storage capacity of all containers (whichever is the greater).

The base and walls of any secondary containment system shall be impermeable to water and soil and must not be penetrated by any valve, pipe or other opening which is used for draining the system.

Refuelling and servicing/maintenance shall also be completed by appropriately trained personnel, within a designated bunded area. If an impermeable surface is not present, plant nappies or similar shall be placed to catch any drips/overspill.

Spill kits shall be provided as appropriate. The location of such spill kits and other clean up materials shall be signposted to ensure all staff and visitors are aware of the locations of these materials.

Where possible, the Contractor shall use biodegradable oils in all plant and vehicles.

3.6.5 Hazardous Contamination

The Site is located adjacent to service lines for the steelworks. However, a qualitative risk assessment has indicated a low risk to the development from residual contaminants in the surrounding area.
All personnel should be briefed that contamination may be present. Any suspected contamination should be reported and a plan for remediation or managing the risks shall be agreed with the local authority and NRW.

3.6.6 Waste

No waste materials shall be stored within 10.0m of any watercourse or drain connecting to a watercourse. Bunds or other barriers shall be used to prevent run-off where possible. Disposal of all arisings and waste materials generated during construction shall be to an appropriately permitted disposal facility. If waste material is to be retained on-Site, this must be in accordance with the Environmental Permitting Regulations.

Waste disposal records (waste transfer notes or waste consignment notes) shall be retained for a period of 3 years for waste transfer notes or 5 years for consignment notes following completion of the project.

3.6.7 Noise and Vibration

All plant equipment shall be serviced and maintained in accordance with manufacturer’s guidelines to prevent generation of excessive noise. Static plant which generates excessive noise should be baffled.

Works that could disturb nearby residential areas will be restricted to the hours of 07:00 to 18:00 Monday to Friday and 07:00 to 13:00 on Saturday.

3.6.8 Dust Management and Air Quality

The work surface shall be regularly damped down to prevent dust generation. Site speed limits shall be set to limit potential for dust generation. Haul roads shall be kept clear of debris.

All plant equipment shall be maintained in accordance with manufacturer’s recommendations to prevent generation of excessive smoke. Any equipment found to be emitting excessive smoke shall be quarantined, removed from use pending repair/replacement.

3.7 Inspections / Monitoring

The work Site, maintenance and storage areas shall be subject to regular environmental inspections. This will include (but not limited to):

- Fuel and waste storage areas free from standing water and signs of pollution;
- Spill kits clearly signed and fully stocked;
- Records of training for environmental response up to date;
- Waste records present;
- Soil and subsoil stockpiles free from weeds and invasive / injurious species;
- All stockpiles compacted, sealed, covered (if required);
- No unauthorised discharges occurring (including silty runoff etc.);
- Noise levels within agreed limits (if applicable);
- No dust being generated; and
- All plant equipment free from leaks and excessive smoke – plant inspected prior to start up every day – any equipment found to be leaking/smoking shall be removed from use pending repair/replacement.
3.8 Emergency Response

The Contractor shall provide an emergency response plan, clarifying roles, responsibilities, actions and reporting in the event of an environmental emergency. As a minimum this will include:

- At all locations which store and operate plant equipment a spill kit should be kept in clear sight (and signposted) in case of a pollution emergency;
- Ensure that all staff are trained in emergency response procedures and know who to contact in the event of a pollution incident;
- Pollution prevention equipment should be regularly inspected for faults; and
- NRW shall be contacted immediately if pollution occurs.
4 Conclusions

This document has outlined a number of proposed safeguarding measures for the proposed development of a MESL at Llanwern. Following the implementation of the safeguarding measures set out within the above sections, no significant adverse effects on the environment would be anticipated.
5 References

Appendices

A. Drawings 14
A. Drawings
1. Do not scale any information from this drawing.
2. The service information supplied in this drawing is indicative only and should not be relied upon. Mott MacDonald cannot take any liability or responsibility for the accuracy of this information.
3. Where the layout may be affected by the presence of existing services, the location of such services should be confirmed on site prior to finalising the development.
4. This design has been undertaken using 1m Digital Terrain Model (DTM) LiDAR information available from 'Lle Geo-Portal'. Information was accessed 14th March 2017.