



**Ysgol Rhyd-y-Grug,
Aberfan**

**Construction and Environmental Management Plan
(CEMP)**

January 2026

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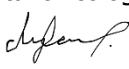
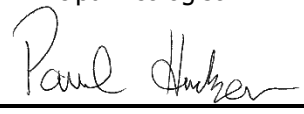
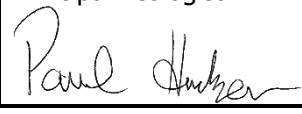
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DOCUMENT CONTROL

Rhyd y Grug Construction and Environmental Management Plan (CEMP)				
Revision	Date	Prepared by	Checked by	Approved by
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1. Introduction

1.1. Brief and Site Location

The Construction and Environmental Management Plan (CEMP) sets out the management measures to be adopted and implemented in the expansion and refurbishment of a primary school.

The site is located at Ysgol Rhyd-y-Grug, Aberfan, Merthyr Tydfil, CF48 4NT (Ordnance Survey Grid Reference centred at: ST 0739 9962)¹ within the boundary of Merthyr Tydfil County Borough Council.

The location of the site is shown on Plan 1: Location Plan.

1.2. Purpose of the CEMP

The CEMP provides a framework to ensure that construction activities are undertaken in an environmentally responsible manner, avoiding adverse effects on the surrounding environment and local communities.

All contractors and suppliers engaged on the project will be issued with a copy of this CEMP and will be required to comply fully with its provisions. Contractors must adhere to all relevant environmental legislation and take account of published standards, best practice guidance, and recognised industry codes of practice applicable to the scheme.

1.3. Scope and Aim of the CEMP

The CEMP identifies responsibilities of various organisations and people to ensure legal compliance with relevant legislation and that mitigation measures are implemented as proposed, as set out by the Merthyr Tydfil County Borough Council.

The CEMP will detail:

- Cumulative environmental construction hazards that may affect habitats, flora and fauna on site;
- Protective measures for important or sensitive habitats;
- Protected species mitigation during the construction phase;
- Mitigation of potentially damaging construction activities;
- Waste management; and
- Pollution prevention measures.

1.4. Site Description

The proposed development site is in the village of Aberfan, approximately 7.1km south-east of Merthyr Tydfil. The River Taff flows approximately 20m east of the site boundary and a parcel of ancient semi-natural woodland sits adjacent to the southern boundary. To the west, the A407 is situated 0.31km from

¹ Latitude and Longitude: 51.68769505, -3.34082535 / what3words: frown.competent.stilted

the site, beyond which lies an expanse of tree-lined agricultural fields, grassland, and woodland, separating the villages of Aberfan and Mountain Ash 2.1km to the east.

The proposed development site covers an area of approximately 1.78ha and comprises the following habitats:

- Modified grassland (g4);
- Lowland mixed deciduous woodland (w1f);
- Built-up areas and gardens (u1);
- Developed land; sealed surface (u1b); and
- Buildings (u1b5).

The layout of the existing site is provided in Plan 2: Existing Site Layout.

1.5. Brief of Development Works

1.5.1. Description of the Proposed Works and Construction Footprint

The proposed development comprises the expansion of the existing Ysgol Rhyd-y-Grug primary school, a new community room and Meithrin (Welsh language early years provision). The expansion will increase the capacity to 327 primary places with 60 FTE nursery pupils. The development proposals include c. 600m² of new build classrooms on the northern aspect and a partial refurbishment of the existing building.

Areas of short, mown grassland will be removed to facilitate the development. The new building will connect to the existing building through an external walkway on the northern aspect, which will not affect the roof of the existing building.

The master layout plan for the proposed development site is provided on Plan 3: Master Layout Plan of Development. A planning application has been submitted under reference P/25/0048².

1.5.2. Schedule of Works Relevant to Environmental and Ecological Assessment

1.5.3. Timing of Works

Construction works are anticipated to commence at the start of 2026, with an overall programme duration of approximately 11 months, subject to contractor confirmation. A detailed timetable of works is provided in Appendix 1: Construction Timetable.

Provisional Programme:

- Start date: Anticipated January 2026.
- Completion date: Anticipated November 2026.

Working Hours:

² https://enterprise.merthyr.gov.uk/PublicAccess_LIVE/SearchResult/RunThirdPartySearch?FileSystemId=DC&FOLDER1_REF=P/25/0048

Working hours shall comply with Merthyr Tydfil County Borough Council's standard construction hours:

- Monday–Friday: 08:00–18:00
- Saturday: 08:00–13:00
- Sundays and Bank Holidays: No works permitted.

1.6. Site History and Review of Historic Site Data

Relevant historic documents for the proposed development include:

- Acer Ecology Ltd (2025) – *Preliminary Ecological Appraisal* (PEA) – Ysgol Rhyd-y-Grug, Aberfan.
- Andrew Taylor (2024) – *Arboricultural Assessment Survey* – Arboricultural Assessment of Trees within boundary of Ysgol Rhud Y Grug Primary School, Merthyr Tydfil.
- Alder Ecology UK Ltd. (2025) – *Ground Level Tree Assessment* (GLTA) – Rhyd Y Grug School, Aberfan, Merthyr Tydfil, CF48 4NT.
- Alder Ecology UK Ltd. (2024) – *Bat Survey and Assessment* – Rhyd Y Grug School, Aberfan, Merthyr Tydfil, CF48 4NT.

Findings from the 2025 Preliminary Ecological Appraisal confirmed low ecological constraints on site and have directly informed the mitigation and timing measures detailed within this CEMP.

2. Risk Assessment of Potentially Damaging Construction Activities

This section identifies construction activities that have potential to adversely affect ecological receptors and describes associated risks.

A detailed breakdown of construction activities is provided in Appendix 2: Construction Activities, Potential Biodiversity Impacts and Mitigation Measures.

2.1 Ecological Features Affected by Works and Risks to Biodiversity

Potential risks to biodiversity have been assessed qualitatively, taking into account the likelihood of occurrence and the magnitude of potential ecological impact.

This evaluation is based on professional ecological judgement, informed by the findings of site surveys and relevant best-practice guidance, including CIEEM (2018) – Guidelines for Ecological Impact Assessment in the UK and Ireland.

Mitigation and avoidance measures corresponding to each risk are detailed in Section 4.

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Table 1: Ecological Risk Assessment Matrix

Ecological Receptor	Principal Activity / Source of Impact	Potential Effect / Impact Pathway	Likelihood	Magnitude of Effect	Overall Risk Rating	Relevant Mitigation / CEMP Section	Residual Risk Rating	Residual Risk (Explanation)
Retained Vegetation (Trees, Shrubs, Ground Flora)	Soil compaction; accidental damage; pollution or chemical spills. There is also potential that encroachment from human activity may over time degrade the retained habitats during the operational phase of the development.	Root compaction, canopy damage, or contamination leading to long-term decline or loss of retained vegetation. Accidental clearance or damage via incursion e.g. trampling or heavy plant machinery.	Likely	Moderate	Medium	Section 3 (Biodiversity Protection Zones); Section 4.5 (Pollution Prevention)	Low	Fencing around retained trees and shrubs where space allows. Areas that cannot be fenced will be marked on a map and communicated to contractors prior to works taking place. Limiting use of heavy plant.
Retained Modified Grassland Habitat	Vegetation clearance and topsoil stripping.	Permanent habitat loss and biodiversity reduction.	Certain	Moderate	High	Section 4 (Mitigation of Construction Activities); Section 5 (Timing of Works)	Low–Medium	Low ecological value; phased clearance to reduce effect of construction.
Retained Lowland Mixed Deciduous Woodland Habitat	Soil compaction; accidental damage; pollution or chemical spills; cumulative degradation.	Loss of nesting, shelter and foraging habitat for birds and small mammals. Potential for habitat loss, biodiversity reduction and disturbance in the	Unlikely	Moderate	Medium	Section 3 (Biodiversity Protection Zones); Section 4.5 (Pollution Prevention); Section 5 (Timing)	Low–Medium	The woodland area will be fenced with Heras fencing and designated as a Biodiversity Protection Zone with entry only permitted where approved ecological supervision or

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		event of encroachment. Soil compaction; accidental damage; pollution or chemical spills.						maintenance access is required.
Running Water	Fuel spillages, run-off and spillages from soil translocation and storage.	Contamination, pollution, sedimentation, or nutrient enrichment of offsite water sources.	Possible	Moderate	Low-Medium	Section 3 (Identification of Biodiversity Protection Zones); Section 4.7 (Pollution Prevention); Section 6 (Contingency Measures)	Low	Bunding and spill plans prevent contamination. As the River Taff is an important ecological corridor for resident and migratory wildlife, the adjacent boundary will be fenced with Heras fencing to protect against sedimented run-off. This area will be designated as a Biodiversity Protection Zone with access only permitted where approved ecological supervision or maintenance access is required.
Nesting Birds	Vegetation clearance during March–August.	Removal or destruction of active nests (legal offence).	Possible	Major	High	Section 4.2 (Nesting Birds); Section 5 (Timing of Works)	Low	The construction phase should be carried out outside of the bird nesting season (March–August inclusive). If this is not possible, a pre-commencement

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								nesting bird check should be conducted prior to works taking place.
Bats – Foraging, Commuting and Roosting	Construction and security lighting; general disturbance. An active soprano pipistrelle day roost is present on the building but falls outside of the footprint of the works. Any associated disturbance would be considered a legal offence. A European Protected Species License is not anticipated to be required as long as the roost is avoided with a clear buffer zone and a non-licensed bat method statement is followed.	Disturbance or deterrence from treelines; reduced foraging; increased activity or storage of equipment near roost.	Possible	Moderate-Major	Medium	Section 4.4 (Sensitive Lighting Strategy)	Low	Low-lux, directional lighting, retention of important woodland and protections to the river corridor minimise risk to foraging and commuting bats. A 10m buffer zone will be set up around the confirmed bat roost and delineated with protective Heras fencing. The fenced area will be designated as a Biodiversity Protection Zone (BPZ) with no access permitted.
Badgers	Vegetation clearance, excavations, open trenches and/or fencing.	Entrapment or obstruction of movement routes.	Unlikely	Moderate	Low–Medium	Section 4.5 (Good Construction Practice for Badgers, Hedgehogs and Other Terrestrial Mammals)	Low	Pre-commencement survey for badger, no excavations or open trenches, gaps under fencing. Clearance using precautionary measures, and mammal-friendly fencing reduce impacts.

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Hedgehogs and Small Mammals	Vegetation clearance; excavation; fencing	Mortality/injury, habitat loss, or movement barrier	Possible	Moderate	Medium	Section 4.5 (Good Construction Practice for Badgers, Hedgehogs and Other Small Mammals)	Low	Clearance using precautionary measures and mammal-friendly fencing reduce impacts. Retention of important woodland habitat to the east of the site.
Invertebrates	Habitat loss; damage to surrounding woodland and waterways.	Grassland clearance; risks as stated to the River Taff and retained woodland.	Possible-Certain	Minor	Low-Medium	Section 4 (Mitigation of Construction Activities)	Low	Clearance of low-quality modified grassland will be compensated by enhancement planting. Mitigation measures are in place to protect surrounding and retained habitats which may be of more value to invertebrates.
Overall Site Ecological Integrity	Combined and cumulative construction effects.	Loss of and damage to on- and off-site habitats.	–	–	–	Sections 3–6 (All Mitigation)	Low	Full mitigation ensures long-term ecological integrity is maintained.

The Preliminary Ecological Appraisal found negligible suitability for reptiles on site due to routine maintenance of modified grassland areas, although if the mowing regime is reduced prior to construction this could be considered suitable foraging habitat (Acer Ecology, 2025).

No invasive species have been recorded at the site.

2.2. Cumulative Impacts Assessment

During the construction phase, cumulative environmental impacts may arise from the interaction of several factors, including noise, dust, vibration, traffic movements, and artificial lighting. Although each factor is managed through specific control measures, their combined occurrence has the potential to increase the overall level of disturbance to nearby receptors and the surrounding environment.

Key potential cumulative effects include:

- Noise and Dust: Concurrent operation of plant and vehicle movements may result in temporary increases in both noise levels and airborne particulates, particularly during dry or windy conditions.
- Noise and Light: Evening or early-morning works involving artificial lighting may heighten perceived disturbance when combined with construction noise.
- Dust and Visual Impacts: Accumulation of dust on vegetation and built surfaces can temporarily reduce visual amenity and contribute to a perception of degraded environmental quality.

To minimise cumulative effects, the following measures will be implemented:

- Adherence to defined working hours to limit temporal overlap of high-impact activities;
- Use of dust suppression (e.g., damping down, covering loads) and noise mitigation (e.g. low-emission plant);
- Directional and low-spill lighting to reduce light trespass;
- Coordination of construction activities to avoid concurrent high-impact operations where practicable; and
- Regular monitoring to ensure combined impacts remain within acceptable thresholds.

Through effective management, scheduling, and monitoring, the overall cumulative environmental effects during construction are expected to be temporary, minor, and not significant.

3. Identification of Biodiversity Protection Zones

3.1. Overview

The areas which have been identified as 'biodiversity protection zones (BPZ)' are shown in Plan 4: Identification of Biodiversity Protection Zones.

BPZs are designated to protect ecologically sensitive habitats, retained trees, and boundary vegetation from construction-related disturbance, pollution, and encroachment.

The areas identified as BPZs identify important habitats/biodiversity features and related resources (e.g., soils) that are to be protected during construction or implementation of the development, namely:

3.2. Biodiversity Protection Zones

Four Biodiversity Protection Zones (BPZs) are designated to safeguard sensitive habitats adjacent to the works:

- BPZ-1: Woodland Protection Zone;
- BPZ-2: Riverbank and Riparian Protection Zone;
- BPZ-3 Retained Tree Protection Zone; and
- BPZ-4: Bat Roost Protection Zone (Controlled-Access Zone).

These zones define where ecological constraints apply and ensure habitats are protected during construction.

Table 2: Summary of Biodiversity Protection Zones

BPZ Ref.	Boundary / Feature	Primary Ecological Value	Protection Type	Permitted Activities	Controls Required
BPZ-1	Broadleaved woodland and root protection areas	Nesting birds, bats, root systems	Exclusion Zone (No Entry)	None (except ECoW emergency inspection)	Marked on plans; communicated in induction; Heras fencing
BPZ-2	Riverbank and riparian vegetation adjacent to River Taff	Sensitive aquatic habitat, wildlife corridor for bats and migratory fish such as Atlantic salmon	Exclusion Zone (No Entry)	None (except ECoW emergency inspection)	Heras fencing along the section of the site boundary adjacent to the river
BPZ-3	Bat roost present in the south-eastern corner of	Day roost for soprano pipistrelle bats	Exclusion Zone (No Entry)	None (except ECoW emergency inspection)	Marked on plans; communicated in induction; Heras fencing creating a

	the main building				10m buffer zone around the area containing the roost to minimise disturbance.
BPZ-4	Retained individual trees across the site and root protection areas	Nesting birds; root systems	Avoid where possible.	Due to spatial constraints, it is not possible to fence off all retained trees on site. A root protection buffer zone of 5m around retained trees should be maintained where possible during construction, with exceptions for necessary maintenance access and ECoW emergency inspection or where this would not be feasible to maintain.	Marked on plans; avoidance measures communicated in toolbox talk/ induction; Heras fencing installed if and where space allows.

3.3. Access and Activity Restrictions

The BPZ will be excluded from all construction-related activities except where approved ecological supervision or maintenance access is required, or in the case of BPZ-4, where spatial constraints make these unfeasible to maintain. This restriction applies to all areas between the protective fencing and the retained vegetation. BPZ boundaries will be physically delineated where possible with protective Heras fencing as detailed in 3.4.

3.4. Protective Fencing

3.4.1. Installation of Heras Fencing

Prior to commencement of works, Heras fencing will be erected along the eastern boundary and the boundary of the on-site woodland area to protect the woodland and the adjacent River Taff from accidental damage or disturbance during construction.

Fencing will be positioned outside the canopy spread and Root Protection Areas (RPAs) in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations.

- Fencing will be a minimum of 2 m in height, supported by stabiliser struts and secured with ground pins (see Appendix 3: Protective Heras Fencing).
- Signage will be installed at 10–15 m intervals stating: "Protected Biodiversity Area - No Entry".

- Debris netting of durable UV-stable mesh (minimum 1 mm aperture) will be attached to the fencing along southern and south-western boundaries to prevent construction debris or light waste from entering adjacent gardens.

The ECoW will inspect and approve all fencing before construction begins and record this in the site ecological log.

3.4.2. Location of Heras Fencing

3.5. Site Induction and Awareness

All site personnel will receive a BPZ briefing during site induction, delivered by the Site Environmental Manager or ECoW. A copy of the BPZ plan will be displayed at the site entrance and welfare area.

The briefing will cover:

- Purpose and location of each BPZ;
- Prohibited activities within BPZs; and
- Reporting procedures for damage or breaches.

Signage will also ensure compliance with the Construction (Design and Management) Regulations 2015 regarding site safety and restricted access.

3.6. Inspection, Maintenance and Removal

Protective fencing and signage will be:

- Checked weekly by the Site Manager;
- Inspected after extreme weather or major site operations; and
- Repaired immediately if damaged to maintain integrity.

Protective barriers will remain in place until written approval for removal is provided by the ECoW following a final inspection.

3.7. Interface with Construction Areas

All areas outside BPZs comprise the designated construction footprint, compound, and access routes. While activities are permitted in these zones, all works must still comply with general environmental controls outlined in Sections 4–6 of this document.

3.8. Implementation of BPZs to Maintain Ecological Integrity During Construction

Effective implementation of BPZs including fencing, signage, exclusion zones, and regular inspection will ensure that retained habitats and adjacent receptors remain unaffected by construction activities.

This will help to maintain ecological integrity throughout the project's duration.

3.9. Demobilisation and Reinstatement of Biodiversity Protection Zones (BPZs)

Upon completion of construction works, all temporary protection and exclusion measures associated with the BPZs will be carefully removed under the supervision of the ECoW. Demobilisation activities will include the removal of protective fencing, signage, and any temporary barriers, ensuring that this process does not result in ground disturbance or damage to retained vegetation or reinstated habitats.

Any compacted or disturbed ground within BPZs will be lightly scarified or decompacted (as appropriate) to restore soil structure and permeability. Stored topsoil and subsoil will be re-spread evenly over reinstated areas in accordance with the soil management plan, ensuring reinstatement to pre-works levels and contours.

If required, vegetation reinstatement will comprise natural regeneration from retained seedbanks wherever possible. Where natural recovery is unlikely, reseedling with appropriate locally sourced native species will be undertaken to promote rapid establishment of ground cover and prevent colonisation by invasive or ruderal species. The ECoW can advise following the post-construction works inspection.

A post-construction works inspection will be carried out by the ECoW to confirm successful reinstatement and removal of all construction materials. Any remedial planting, seeding, or soil conditioning identified will be implemented within an agreed timeframe to ensure the long-term recovery and ecological functionality of reinstated BPZs.

Following this inspection, the ECoW will complete a Final Ecological Sign-Off Record, confirming that all reinstatement works and mitigation measures have been implemented satisfactorily. This sign-off record, including photographic evidence and summary notes, will be submitted to the Project Manager and retained within the Environmental File as part of the formal close-out documentation for the scheme.

4. Mitigation of Potentially Damaging Construction Activities

The following measures set out the avoidance, mitigation, and compensation actions required to minimise ecological impacts arising from construction activities identified in Section 2.

4.1. Bats

All British bats and any place used for shelter or protection, or a breeding site or resting place (their roosts), are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations (2017). Their roosts are protected whether the animals are present. The presence of bats or evidence of bats on site must be acknowledged and relayed to all site workers. Any work undertaken where bats are present requires a licence issued by Natural Resources Wales. Although almost all the bat species recorded on the property are light-tolerant *Pipistrellus spp.*, records of roosting, foraging and commuting *Myotis spp.*, noctule (*Nyctalus noctula*) and brown long-eared bats (*Plecotus auritus*) have been identified within 1km of the site, and therefore the adjacent broadleaved woodland to the east may function as an important dark corridor for these species. Therefore, there is potential for some bat species and other non-bat protected species to be subject to disturbance from any increased artificial lighting.

4.2. Trees with Bat Roost Potential

No trees are proposed for felling or significant pruning as part of the works. Should the removal or heavy reduction of any trees identified as having moderate or high bat roost suitability in the Ground Level Tree Assessment conducted by Alder Ecology (2025) be required due to unforeseen and exceptional circumstances, they must first be subject to further inspection by a licensed bat ecologist to confirm the absence of roosting bats.

If evidence of bats or potential roost features (e.g. cavities, cracks, lifted bark, or woodpecker holes) is identified during pre-works checks, appropriate measures will be implemented in consultation with the ECoW. This may include detailed aerial inspection or endoscopic survey, and, where a roost cannot be ruled out, works will only proceed under a valid Natural Resources Wales (NRW) Bat Mitigation Licence.

4.3. Reptiles

A Preliminary Ecological Assessment undertaken by Acer Ecology in 2025 confirmed negligible suitability for reptiles due to intensive management of the modified grassland. However, if the mowing regime was to be reduced prior to construction, these areas may provide suitable foraging areas for reptiles. Therefore, a precautionary method of working will be adopted.

Vegetation clearance will proceed in a directional two-stage cut under ECoW supervision, starting in the centre of the site and progressing outward to allow any transient reptiles or other species to disperse. All site staff will receive a toolbox talk covering identification, responsibilities, and stop-work procedures. If a reptile is encountered, works will cease, and the ECoW will be contacted for further instruction.

This approach ensures compliance with Section 9(1) and 9(5) of the Wildlife and Countryside Act 1981 (as amended).

4.4. Nesting Birds

4.4.1. Timing of Works

To avoid disturbance to nesting birds, any clearance of trees, scrub, or vegetation will be undertaken outside the main breeding season (March–August inclusive). If clearance during this period is unavoidable, a suitably qualified ecologist will conduct a pre-commencement nesting bird check immediately prior to works. Should any active nests be identified, a 10m buffer will be maintained until the young have fledged.

These measures will ensure compliance with the Wildlife and Countryside Act 1981 (as amended) and prevent disturbance, injury, or destruction of nesting birds during construction.

4.4.2. Bird Boxes

To compensate for potential nesting habitat loss, one closed fronted nest box and one house sparrow nest box (see Appendix 4: Examples of Closed and Open-Fronted Nest Boxes) will be installed on retained trees along the eastern boundary at a height of at least 3m, facing between south-east and south-west. Boxes will be checked and cleaned annually in autumn.

Installation will be supervised by the ECoW during the landscaping phase.

4.5. Good Construction Practice for Badgers and Other Terrestrial Mammals

In line with good practice, any open trenches and excavations associated with the development will either be closed at night, or a means of escape provided (e.g., a wide plank at no greater angle than 45° or gently graded site wall of the same angle, or equivalent) to allow any trapped animals to escape safely.

Additionally, it is recommended that any security fencing erected on site is permeable to wildlife movement. A gap of at least 150mm will be maintained at 10m intervals along the bottom of the fence to facilitate passage of small mammals and badgers.

Vegetation clearance will proceed in a directional two-stage cut under ECoW supervision, starting in the centre of the site and progressing outward to allow any transient wildlife to disperse.

Finally, all exposed pipes and open trenches must be inspected each morning before construction activities commence to ensure no wildlife is trapped. These daily morning checks will be undertaken by the Site Manager or ECoW.

These measures ensure compliance with the Protection of Badgers Act 1992 and support biodiversity objectives under Section 6 of the Environment (Wales) Act 2016.

4.6. Sensitive Lighting Strategy

To minimise the impact of artificial lighting, the lighting design for the site will be kept to the minimum level which meets the needs of security and health and safety. The unnecessary lighting of habitats which

could potentially be used by bats and badgers such as nearby trees, scrub habitats etc. will be avoided. External lighting will be minimised and installed at low-level only (i.e. no higher than eaves level and lower than 2.4m) and directed downward (i.e. below the horizontal plane with no upward tilt). Fully shielded lights with front and side hoods/shields or cowls will be installed to prevent upwards and horizontal light spill. The lighting source will not be visible. Lighting will not be located in the vicinity of, or shine towards the trees and areas of scrub which surround the site, thus maintaining a 'dark corridor' and avoiding/minimising disturbance to commuting and foraging bats and dormice.

Any security lights used will operate on a passive infrared (PIR) motion sensor sensitive to large objects only, to avoid constant triggers by bat passes and with timers set on a short duration (i.e. a maximum 'on' time of one minute) to reduce the amount of 'lit time'. The lights will either have an integrated LED light source, or use LED bulbs. They will be low intensity (i.e. circa 11 watts) and have a warm white colour temperature of 3000K or less (ideally 2700K if commercially available). White, blue and green lighting sources including mercury or metal halide, CPO and CDO (ceramic discharge metal-halide) bulbs which have significant effect on bats will be avoided.

The ECoW will review and approve lighting layout prior to installation.

4.7. Pollution Prevention Measures and Spill Response

Appropriate measures will be implemented to prevent pollution and excessive sedimentation of off-site habitats during both the construction and post-construction phases. All works will adhere to current Natural Resources Wales best practice guidance. In particular, reference should be made to *GPP6 (Working at Construction and Demolition Sites)*, which outlines recommended procedures to prevent surface water and pollutant run-off during site preparation and construction.

Details of the proposed measures are provided in the Pollution Prevention Plan (see Appendix 5: Pollution Prevention Plan/Emergency Response Plan).

4.7.1. Working Methods

Where possible, works will be undertaken using hand tools to minimise the risk of pollution. Reducing reliance on combustion-powered machinery will significantly decrease the likelihood of pollution incidents.

4.7.2. Contingency Measures

Contingency procedures will be established prior to the commencement of works to address unforeseen incidents such as spillages, fires, or pollution of land or water. These measures will include systems for the control and containment of hydrocarbon spillages (e.g. from parked or operational vehicles).

4.7.3. Contingency for Prolonged Wet Weather

Contractors will plan for periods of intense or prolonged rainfall, incorporating pollution mitigation measures such as:

- Minimising the exposure time of stripped ground and soil stockpiles;
- Restricting vegetation clearance to areas required in the near term; and
- Seeding or covering soil stockpiles to prevent erosion and sediment loss.

4.7.4. Deliveries

Deliveries represent a potential pollution source, particularly through the tracking of mud onto adjacent roads or spillages of fuels, oils, or hazardous materials. The following measures will be implemented to mitigate these risks:

- Designating and clearly communicating a single delivery area;
- Ensuring delivery areas are located away from drains and watercourses;
- Inspecting all tanks, drums, and containers for damage or leaks upon arrival;
- Directing deliveries of hazardous or polluting materials to secure, bunded storage areas;
- Supervising all deliveries, particularly those involving hazardous substances;
- Providing toolbox talks to site personnel regarding delivery procedures and pollution prevention;
- Deliveries co-ordinated to avoid congestion; and
- Ensuring all materials and waste leaving site are properly covered to prevent sediment deposition on access roads.

4.7.5. Fuel Storage

To prevent fuel-related pollution incidents, the following measures will be applied:

- Securing and protecting fuel storage areas from vandalism;
- Locating fuel stores in bunded units on an impermeable base, in compliance with the relevant British Standard; and
- All refuelling conducted in a designated area with spill kits available.

4.7.6. Silt Run-off Prevention

Improper management of silt and silty water is a major cause of pollution incidents on construction sites. Silt can smother aquatic habitats, degrade water quality, and contribute to localised flooding. Activities such as vehicle movement, rainfall on exposed ground, and washing of plant or equipment can generate silty run-off. The following measures will therefore be implemented:

- Provision of designated plant, wheel, and boot washing facilities; and
- Routine maintenance and inspection of these facilities to ensure effective operation.

4.7.7. Spill Response

In the event of an accidental spillage (e.g. fuel or hazardous substances), a rapid response will be implemented to contain and control the release.

Spill kits will be maintained in all high-risk areas, including the designated refuelling points. The Site Manager will ensure weekly checks. Staff will receive induction training to ensure they can respond quickly and appropriately in the event of a spill, and all incidents will be logged.

4.8. Noise Management

To minimise temporary increases in noise levels associated with construction activities, the following precautionary and best-practice measures will be implemented throughout the works:

- **Delivery Management:** Deliveries will be made directly to a designated delivery area to avoid unnecessary double handling and associated noise;
- **Timing of Deliveries:** Where practicable, deliveries will be scheduled outside peak public traffic hours to reduce congestion-related noise;
- **Site Access Management:** The site entrance will be maintained in a clean and unobstructed condition to prevent vehicle queuing and unnecessary idling noise;
- **Plant and Vehicle Maintenance:** All plant and vehicles will be maintained in good working order and serviced in accordance with manufacturer recommendations. Records of servicing and maintenance will be retained on site;
- **Fuel Standards:** Low-sulphur fuels or cleaner alternatives will be used for plant and vehicles wherever feasible;
- **Engine Idling:** All vehicle and plant engines will be switched off when not in use to prevent unnecessary noise and emissions;
- **Operator Competence:** Only trained, certified, and competent operatives will operate site plant and equipment;
- **Monitoring and Housekeeping:** The Site Manager will carry out routine inspections to ensure noise controls are in place and effective. Local roads and boundaries will be regularly checked for debris and cleaned as necessary;
- **Prohibition of Burning:** No burning of materials will occur on site at any time;
- In addition to the above measures, all construction works will adhere to the working hours specified in Section 1.5.2 and comply with the following requirements:
 - All statutory and site-specific noise control limits will be observed; and
 - Where necessary, plant and equipment will be silenced, acoustically screened, or enclosed in accordance with *BS 5228-1:2009 +A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites)*.

These measures will ensure that construction-related noise is controlled to the lowest practicable level, maintaining compliance with best practice and statutory requirements.

4.9. Air Quality and Dust Management

To minimise the generation of dust and air pollutants during the construction phase, the following control measures and good site practices will be implemented across all work areas:

- **Dust Suppression:** Dust emissions from exposed surfaces, haul routes, and material stockpiles will be controlled through the use of water damping, misting systems, or other suitable suppression methods, particularly during dry or windy conditions;
- **Wheel and Vehicle Cleaning:** A wheel-wash facility will be installed at the site exit to prevent the tracking of dust and mud onto the public highway.
- **Vehicle and Plant Controls:**
 - All non-road mobile machinery (NRMM) will comply with relevant Stage V emission standards where practicable;
 - Vehicle and plant engines will be switched off when not in use to reduce idling emissions; and
 - Low-sulphur fuels or cleaner alternatives will be used wherever possible.
- **Monitoring:** The Site Manager will conduct routine visual inspections to assess dust levels and the effectiveness of control measures. Additional monitoring may be undertaken if visible dust leaves the site boundary or complaints are received;
- **Housekeeping:** Construction areas, access routes, and hard standings will be kept clean and free from loose debris. Waste materials will be stored in covered skips or containers and removed from site regularly; and
- **Prohibition of Burning:** Burning of any waste or vegetation on site is strictly prohibited.

These measures are designed to ensure compliance with IAQM (2014) Guidance on the Assessment of Dust from Demolition and Construction, DEFRA Best Practice Guidance, and relevant local authority environmental protection requirements.

Implementation of these measures will ensure that air quality impacts are minimised, preventing nuisance dust and maintaining safe working conditions and community amenity throughout the construction period.

4.10. Waste Management

Effective waste management is essential to minimise environmental impacts, promote resource efficiency, and ensure compliance with all relevant waste legislation. The following measures will be implemented throughout the construction phase:

- **Legal Compliance:** All waste generated on site will be managed in accordance with the Environmental Protection Act 1990 (Duty of Care), the Waste (England and Wales) Regulations 2011, and any subsequent amendments. Waste will only be transferred to appropriately licensed waste carriers and permitted facilities.
- **Waste Hierarchy:** The management of waste will follow the Waste Hierarchy (Prevention → Reuse → Recycling → Recovery → Disposal). Contractors will be required to minimise waste generation at source and maximise opportunities for reuse and recycling of materials.
- **Segregation and Storage:** Waste will be segregated at source into suitable containers (e.g., inert, non-hazardous, hazardous, recyclable) and clearly labelled.
- **Hazardous Waste:** Any hazardous waste arising from site activities will be stored, handled, and disposed of in accordance with the Hazardous Waste (Wales) Regulations 2005. Relevant consignment notes and transfer documentation will be retained on site;
- **Waste Documentation:**
 - Waste Transfer Notes and Consignment Notes will be completed for all waste movements and retained for a minimum of two years (non-hazardous) or three years (hazardous); and
 - Records will include the waste description, EWC code, volume, carrier details, and destination facility.
- **Training and Awareness:** All site operatives will receive a toolbox talk during induction covering waste segregation, recycling, and spill prevention. Signage will be installed at storage areas to promote compliance and good practice; and
- **Inspections and Monitoring:** The Site Environmental Manager will carry out regular inspections to ensure that waste is correctly stored, segregated, and disposed of. Any non-conformances will be recorded in the site environmental log and rectified immediately.
- **Prohibited Practices:**
 - Burning of waste on site is strictly prohibited; and
 - Fly-tipping or unauthorised disposal of materials will not be tolerated and will result in disciplinary action and potential legal consequences.

Implementation of these measures will ensure that waste is managed efficiently, safely, and lawfully, supporting sustainable construction and minimising the project's environmental footprint.

5. Timing of Ecologically Sensitive Works

5.1. Overview

The timing of works has been designed to ensure that construction activities are undertaken in a manner that avoids adverse effects on protected species and habitats. This section identifies periods when ecological supervision by an Ecological Clerk of Works (ECoW) is required and outlines timing constraints associated with key site activities.

Construction activities falling outside of these approved timing windows may only proceed under direct ecological supervision or following further ecological assessment.

5.2.1 Nesting Birds (March–August)

- No vegetation clearance, branch trimming, or works affecting nests may occur 1 March–31 August unless a same-day ECoW nesting bird check confirms no active nests.
- If any active nest is found, a 10m exclusion buffer will be imposed until chicks fledge.

5.2.2 Bats

No bat roosts have been identified on site outside of the designated BPZ. A bat roost feature has been identified within the south-eastern corner of the main building, which lies outside the construction footprint. A non-licensed bat method statement prepared by Alder Ecology Ltd. was not available at the time of writing but will be provided prior to the commencement of works to the building and should be adhered to throughout the construction phase. This document will set out any seasonal or timing restrictions relevant to bats and confirm appropriate avoidance and precautionary measures to ensure compliance with relevant legislation.

5.2.3 Reptiles & Amphibians

- During active season (March–September), vegetation clearance must be carried out using a directional two-stage cut approach starting from the centre of the site and working outwards.

5.2.4 Badger

- Pre-commencement survey must be completed no more than 14 days before works start.
- If a sett is located within influence distance, NRW licensing may impose additional timing constraints.
- No works may occur after dusk or before dawn.
- No artificial lighting is permitted.

5.3 Key Timing Rules

- No vegetation clearance March–August without ECoW check.
- Bat-sensitive works only mid-Sept–Oct or Mar–Apr.
- No works at night; no artificial lighting.
- All species surveys must be completed before works start, with repeat surveys where validity periods expire.

6. Contingency/Emergency Measures for Accidents and Unexpected Events

6.1. General Approach

Contingency and emergency measures will be established prior to the commencement of construction works to ensure an effective and coordinated response to any unforeseen incidents. These procedures will address potential sources of atmospheric, aquatic, or terrestrial pollution, as well as response protocols in the event of fire, chemical spillage or other hazardous incidents

Controls will also be implemented to contain and manage hydrocarbon spillages, for example from parked or refuelling vehicles, both during construction and once the development is operational.

All measures will adhere to the Natural Resources Wales' best practice guidance, including:

- *Working at Construction and Demolition Sites: GGP6 – Pollution Prevention Guidelines*³; and
- *Guidance for Pollution Prevention: Works and Maintenance in or Near Water (GPP 5)*.

Contractors will also be required to implement relevant measures from the latest Guidance for Pollution Prevention (GPP) series.

6.1 Pollution Response Procedure

A site-specific Pollution Response Procedure will be implemented to ensure all operatives understand the steps required to prevent contaminants reaching the watercourse.

6.1.1 Pollution Control Map

A Pollution Control Map will be displayed at the site entrance, welfare unit, and Site Manager's office, showing the river and drainage routes, silt and sediment controls, spill-kit locations, fuel/chemical storage (if any), wash-out areas, emergency assembly points, and emergency access routes. This map will also be included in all inductions and toolbox talk.

6.1.2 Spill Response Roles and Trained Personnel

A minimum of two trained Spill Response Operatives (SROs) will be appointed, and their names and contact details will appear on the map. All personnel will receive basic spill-response training, while SROs will take lead responsibility for containment and clean-up. Each worker will also be issued with an emergency contact card with 24/7 Site Manager contact details, the ECoW, the NRW Incident Hotline (0300 065 3000), and the site's grid reference/what3words location.

6.1.3 Spill Kits

³ Available online at <http://bit.ly/1K117H>. Note these guidelines were withdrawn on the 14th December 2015 but are still considered relevant.

Spill kits containing absorbent pads, socks, drain covers, booms, disposal bags, and PPE will be placed at key locations shown on the Pollution Control Map (plant laydown, scaffold access point, welfare unit, and bridge platform if used). Kits will be checked weekly and after any use.

6.1.4 Steps to be Taken in the Event of a Pollution Incident

Immediate Action (All Operatives)

All operatives must stop work, shut down plant, alert the Site Manager and SROs, deploy spill-kit materials only where safe, protect drains and routes to the river, and clear non-essential personnel from the area.

Response Actions (SROs Only)

SROs will assess the type and extent of the spill, deploy booms, absorbents, and drain covers to contain it, install bunds if required to prevent flow toward the river, coordinate the containment and removal of contaminated material, and secure the area until the Site Manager and ECoW authorise safe continuation.

Reporting Requirements

All pollution incidents, regardless of scale, must be reported immediately to NRW's Incident Hotline, the Client, and the Principal Contractor, and to the LPA where the watercourse or public rights of way are affected. A Pollution Incident Report Form will be completed within 24 hours.

6.1.5 Cleanup, Disposal and Ecological Verification

Contaminated materials will be collected without delay and disposed of as hazardous waste under the Hazardous Waste (Wales) Regulations 2005, with no overnight storage on site. The ECoW will undertake a post-incident ecological assessment. If pollution enters the River Taff, written NRW confirmation may be required before works resume.

6.1.6 General Spill Response Measures

Spill kits will remain available at the site compound, all personnel will be inducted in spill-response procedures, and any spill must be contained, neutralised, and cleaned using appropriate materials, with waste disposed of in accordance with regulatory requirements.

6.1.7 Immediate Safety Measures

During any pollution incident, safety is prioritised: the area will be made safe, the public protected, and where safe, immediate containment measures will be taken to stop further spread.

6.1.8 Notification and Documentation

The following authorities must be notified as appropriate:

- Emergency Services (Police or Fire Service) – where there is immediate risk to safety or significant environmental impact;

- NRW – report incidents via the online form: <https://www.smartsurvey.co.uk/s/NU2VYV>.

The report should include:

- Extent and type of pollution;
 - Any wildlife affected;
 - Presence of odours or discolouration; and
 - Source of pollution (if known).
- LPA – for incidents affecting ordinary watercourses (non-main rivers), culverts, bridges, or public footpaths adjacent to water.

6.1.9 Final Reporting

Comprehensive documentation ensures accountability and facilitates future learning. The following reporting activities will be completed:

- Prepare a comprehensive incident report, summarising the event, response measures, and outcomes; and
- Submit required reports to NRW and the LPA, as applicable.

6.1.10 Resumption of Works

Work may only recommence once the Site Manager confirms the area has been made safe, the ECoW verifies that no ecological risks remain and all mitigation measures are functioning, all required regulator notifications (including NRW where applicable) have been completed, and all contaminated materials have been fully removed from site by a licensed waste carrier

6.2 Protected Species

If any previously unrecorded protected species are identified on site, all works in the affected area must cease immediately. A minimum of 5m exclusion zone will be created. The ECoW will be contacted to assess the situation and advise on appropriate mitigation or licensing requirements before works resume.

7. Responsible People, Lines of Communication and Documentation

7.1. Overview

Details of key stakeholders will be kept on site and made available to site visitors to ensure that the project team and interested parties know who to liaise with, who the client is and which person is undertaking each required task, the details of personnel and lines of communication necessary for its full implementation, including those responsible for providing the following in relation to biodiversity conservation:

- a) Advice and monitoring in relation to regulations, legal consents, planning conditions, environmental procedures and contractual arrangements;
- b) Correct installation and maintenance of physical protection measures;
- c) Training and toolbox talks for staff;
- d) Contingency measures in the event of an accident or occurrence of other potentially damaging incidents; and
- e) Periodic reporting on the success of a) to d) if required.

A template for recording environmental training and toolbox talks can be found in Appendix 6: Environmental Training Record/Toolbox Talk Template. A template for recording of site inspections and post-construction monitoring can be found in Appendix 7: Monitoring and Reporting Template.

7.2. Principal Contractor

The Principal Contractor is responsible for:

- Ensuring the CEMP is developed, maintained on site, and implemented throughout all project phases;
- Maintaining the CEMP as relevant information becomes available (e.g. further consent conditions, pre-construction surveys);
- Ensuring all contractors and visitors comply with the CEMP;
- Addressing environmental issues identified in pre-construction information and surveys, and implementing control measures to minimise environmental risk; and
- Communicating the CEMP and related documents to employees, contractors, and client representatives.

7.3. Site Manager

The site manager is responsible for:

- Maintaining site safety and security, including the safe storage of materials and chemicals;
- Reporting any non-conformance or environmental incidents to the project management team;

- Ensuring the site remains tidy and waste is managed in accordance with company procedures;
- Controlling access to hazardous areas and ensuring safe egress in case of an incident; and
- Ensuring first aid facilities and trained personnel are available, along with appropriate spill kits and emergency response equipment.

7.4. Site Environmental Manager

The Site Environmental Manager is responsible for ensuring all works comply with relevant environmental legislation, consents, objectives, and the CEMP. Duties include:

- Conducting site inspections, audits, and managing non-conformance issues
- Delivering environmental training, including team briefings and toolbox talks;
- Liaising with Health and Safety Advisors to complete and manage the Site Waste Management Plan;
- Reporting on environmental performance data;
- Overseeing inductions for new contractors and visitors, ensuring compliance with method statements and risk assessments; and
- Maintaining up-to-date site plans showing compounds, storage areas, parking, retained habitats, protection fencing, and exclusion zones, displayed at the site entrance.

7.5. Ecological Clerk of Works (ECoW)

An appropriately qualified and licensed Ecological Clerk of Works (ECoW) will be available on an on-call basis throughout all project stages to provide ecological oversight and manage any unexpected encounters with wildlife. The ECoW will ensure that all works comply with relevant environmental legislation, planning conditions, and the standards of the Construction Environmental Management Plan (CEMP).

The ECoW will liaise closely with the Site Environmental Manager to ensure that contractors receive appropriate ecological guidance and training, including toolbox talks where required. It is the responsibility of the Site Environmental Manager to coordinate any training needs for contractors and other site personnel.

Where necessary, a suitably qualified ecologist will undertake nesting bird checks of vegetation, trees, and any other suitable nesting features prior to site clearance or vegetation removal.

The ECoW's responsibilities cover both the Pre-construction and Site Clearance stages, as detailed below:

Pre-construction

- Undertaking required pre-commencement surveys for badger and nesting birds;
- Ensuring correct installation of bird and bat boxes;
- Supervising pre-construction or construction activities that may affect key ecological features; and
- Delivering toolbox talks and pre-works briefings to site personnel.

Site Set-up/Construction Works

- Supervising vegetation clearance and ensuring installation of bird and bat boxes;
- Ensuring biodiversity protection zones (BPZ) are installed;
- Overseeing habitat manipulation, and Reasonable Avoidance Measures (RAMS);
- Ensuring bat and bird boxes are installed on site; and
- Ensuring external lighting installed is of a wildlife-friendly design.
- Site attendance to ensure trees are protected in accordance with the requirements of the arboricultural report;
- Ensuring works to not damage any protected species or habitats; and
- Supervising site withdrawal once works are completed.

The ECoW will maintain a daily log of key ecological activities, including surveys, briefings, and watching briefs. This will be made available to the Local Planning Authority upon request.

7.6. Ecological Clerk of Works (ECoW - Bats)

The Bat ECoW's responsibilities are detailed below:

- Deliver a toolbox talk to all contractors prior to commencement of works, setting out legal obligations and site-specific bat protection measures.
- Ensure all works comply with relevant bat legislation in Wales, including The Conservation of Habitats and Species Regulations 2017 (as amended) and the Environment (Wales) Act 2016.
- Provide clear guidance to contractors to ensure that no bat roosts are damaged or destroyed and that bats are not killed, injured, or disturbed.
- Advise on the protection of roost access points to ensure entrances and exits are not blocked, obstructed, or modified.
- Undertake a pre-commencement bat survey within 24 hours prior to works starting and carry out re-inspections of the building before and during operations.
- Immediately prior to works commencing, inspect all work areas using a high-powered torch to confirm the absence of bats.
- Identify high-risk areas and directly supervise controlled stripping of small roof sections where required, remaining on site until these works are completed.
- Inspect areas around windows, doors, and porches prior to soft stripping and oversee careful removal of materials, ensuring all removed materials are checked for torpid bats.
- Advise on maintaining building integrity (both new and existing structures) until the point of works to prevent occupation by bats.
- Provide guidance on maintaining coverings to buildings during works to prevent bat access and ensure no open voids are left, particularly overnight or during any cessation of works.

- Act as the primary point of contact if a bat is discovered at any time, providing immediate advice on whether bats should be left to disperse naturally or require rescue and relocation by a licensed bat handler.
- Attend site promptly if bats are encountered, ensure works cease immediately, and rescue any bats in immediate danger in accordance with the Bat Workers' Manual, placing them in a suitable handling box for later release or continued roosting.
- Ensure that operatives and contractors are aware they are strictly prohibited from handling bats.
- Liaise with Natural Resources Wales (NRW) for advice if bats are present on site and confirm when works may recommence following regulatory guidance.
- Be available during the above works to capture and later release any bats found.
- Capture bats by hand or net and place them into a cloth carrying bag for transport to ground level.
- Instruct that works are temporarily suspended while bats are relocated.
- Transfer bats to an unoccupied Schwegler bat box installed in a suitable tree at approximately 2.8 m above ground level, away from public access and construction activity.
- Ensure the bat box provides adequate internal space and appropriate surfaces to allow natural roosting and protection from noise and disturbance.
- Monitor holding conditions to allow bats to emerge safely later to disperse to a suitable roost if required.

7.7. Contractors and Visitors

Contractors and visitors to the project will be responsible for:

- Ensuring that the control measures identified from environmental surveys are implemented if they are relevant to their work/visit (for instance, including method statements, risk assessments, site inductions and toolbox talks); and
- Ensuring that the project management team are notified about any non-conformance of control measures or environmental incident where the environment has been put at risk.

7.8. Contact Details

The table overleaf provides the names and contact details of responsible persons. Procedures, responsibilities, responsible persons and actions are also summarised in Appendix 8: Contractor Summary and Key Environmental Procedures.

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Table 4: Project Roles, Responsibilities and Contact Details

	Company Name	Contact Details
Client	Merthyr Tydfil County Borough Council	Chris Jones Tel: 01685 725000 Email: chris.jones3@merthyr.gov.uk
Principal Contractor and Contract Manager	John Weaver Contractors	Derwyn Pugh Tel: 01792 464004 Email: derwyn.pugh@johnweaver.co.uk
Site Manager	John Weaver Contractors	Russell Williams Mobile: 07377 927 644 Email: russell.williams@johnweaver.co.uk
Site Environmental Manager	John Weaver Contractors	Jenny Jones Mobile: 07304 073 071 Email: jenny.jones@johnweaver.co.uk
Non-licensed Bat Supervision ECOW	Alder Ecology	Roger Martindale Tel :07533 273 939 E-mail rmartindale@btinteneret.com
General ECoW	TBD	-

8. Use of Protective Fences, Exclusion Barriers and Warning Signs

8.1 Heras Fencing

Protective fencing will be installed prior to the delivery of materials or machinery to site and before any soil stripping, vegetation clearance, or other construction activities commence. The purpose of this fencing is to safeguard sensitive ecological features and prevent accidental damage or encroachment.

Once erected, the protective barriers must not be removed, relocated, or modified without prior approval from the ECoW and, where required under planning conditions, written consent from the relevant decision-maker.

Appropriate warning and information signage will be affixed to the fencing at regular intervals, clearly identifying the area as a protected zone and instructing personnel to avoid interference or unauthorised access.

Heras fencing will be used to demarcate the biodiversity protection zones prior to the commencement of construction works. All site personnel will be briefed on the purpose of these exclusion areas to ensure vegetation and habitats beyond the fencing remain undisturbed. Signage will indicate that the area is a protected ecological zone and that unauthorised access is prohibited. The protective fencing will remain in place until all construction activities are complete and removal has been approved by the ECoW.

Further details on biodiversity protection zones, including the extent and location of fencing, are provided in Plan 4: Identification of Biodiversity Protection Zones and Appendix 3: Protective Heras Fencing.

Plan 1: Location Plan



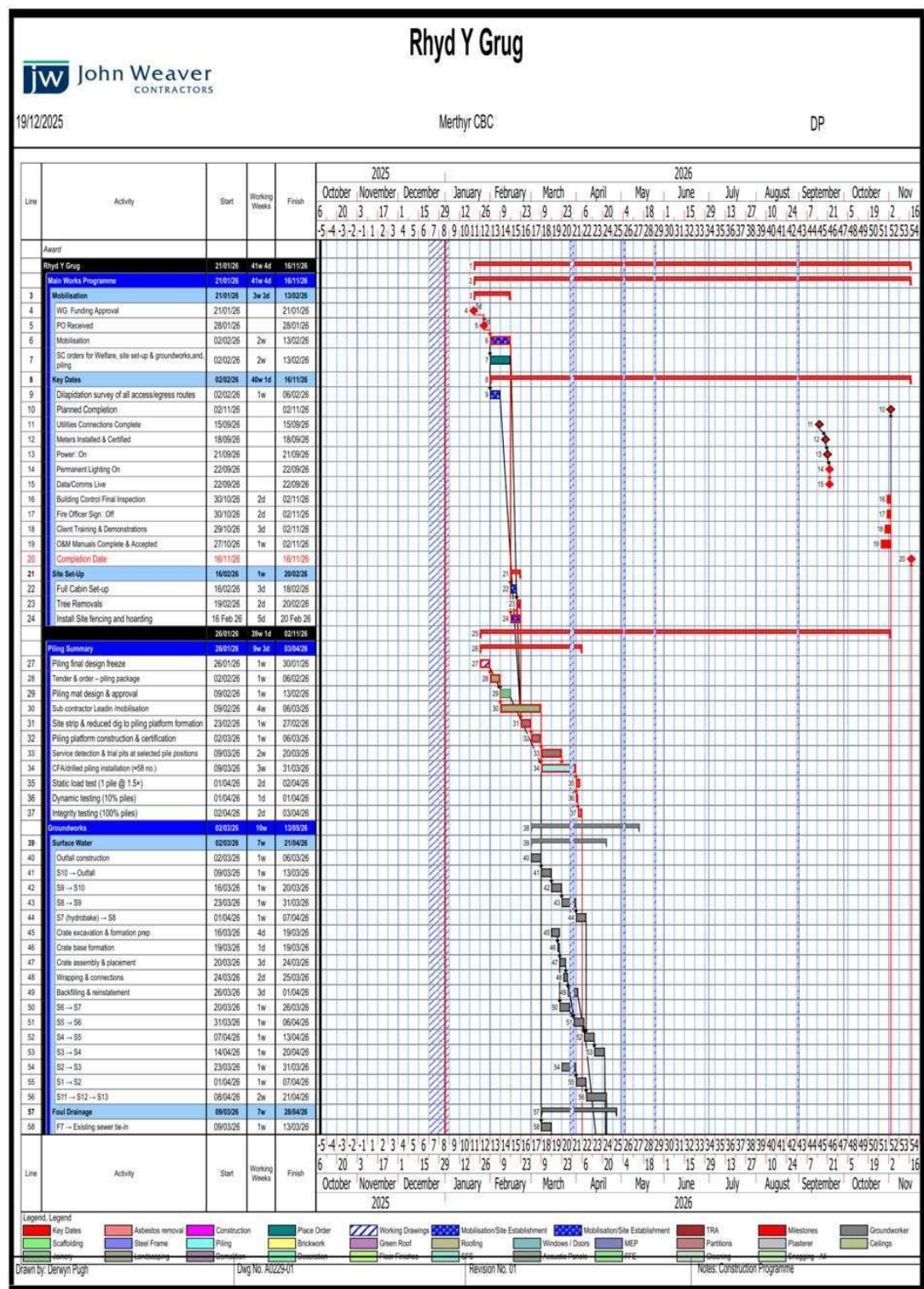
Plan 2: Existing Site Layout



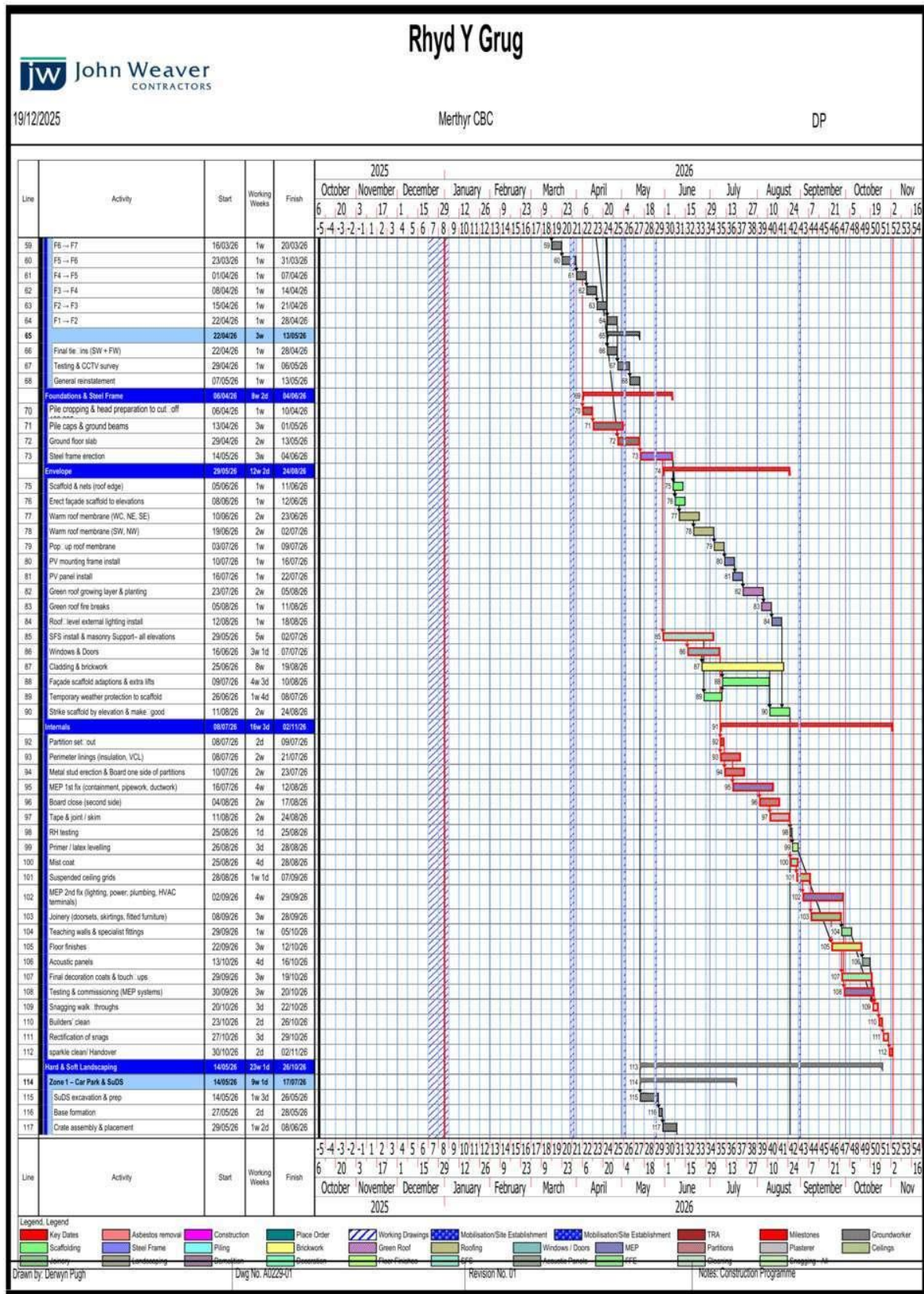
Plan 3: Proposed Development

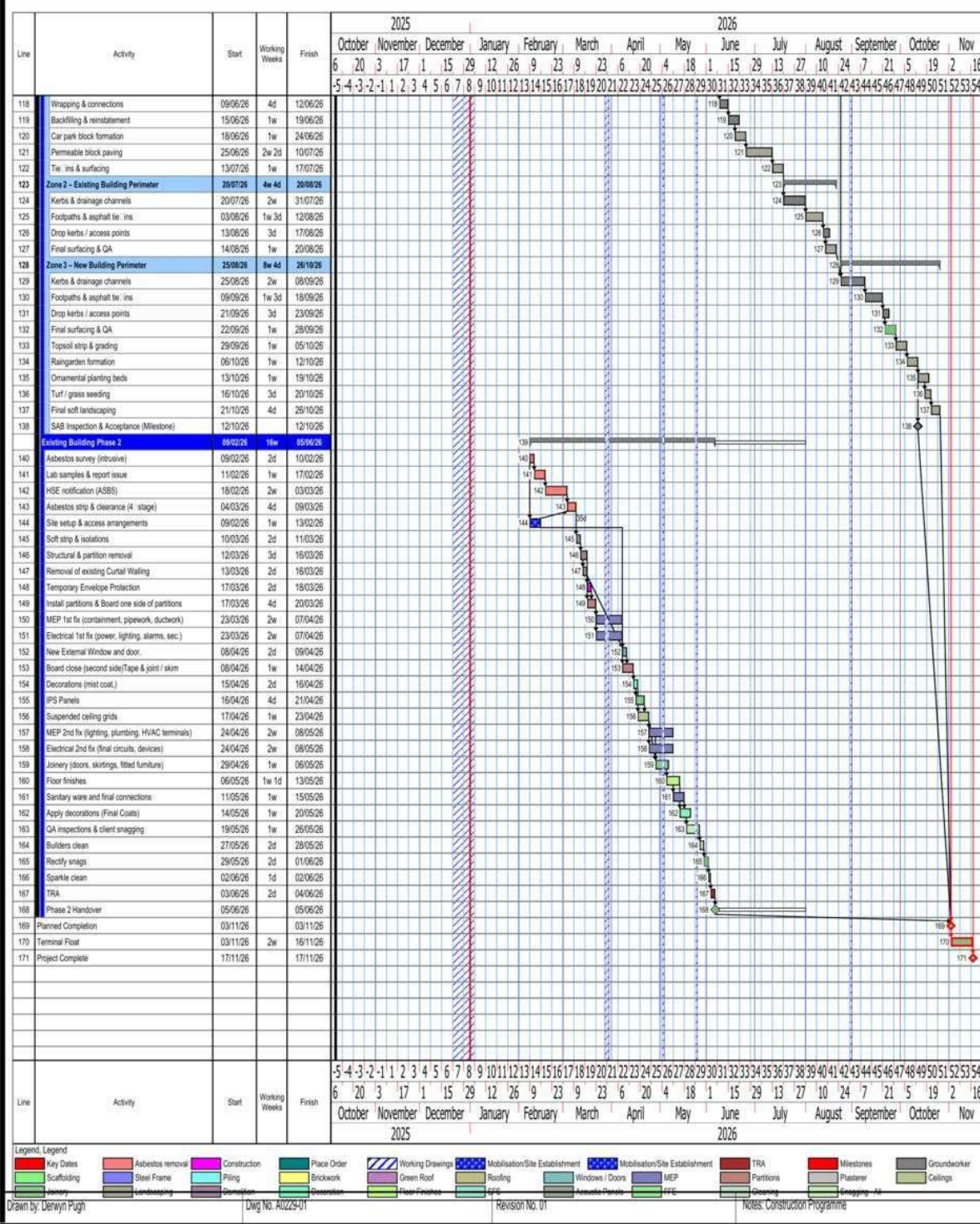


Appendix 1: Construction Timetable



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Appendix 2: Construction Activities, Potential Biodiversity Impacts and Mitigation Measures

The following activities could impact biodiversity on and/or off site and should be reviewed as part of the risk assessment process for potentially damaging construction activities. The table below provides an overview of potential ecological impacts and key mitigation measures to be implemented.

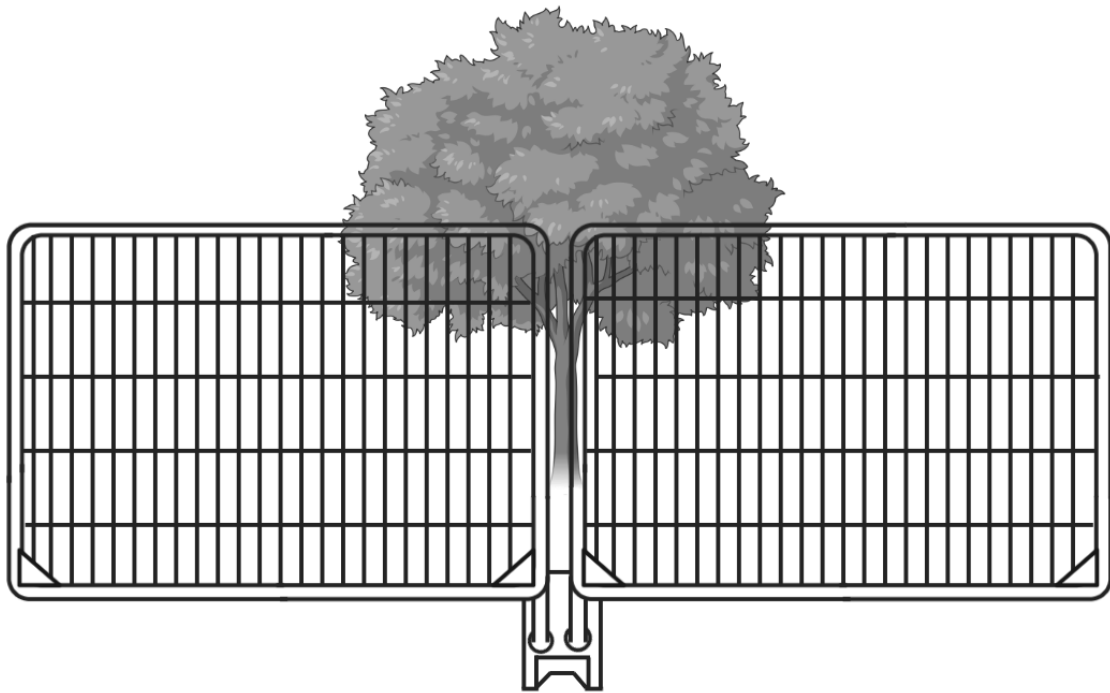
Table 5: Construction Activities, Potential Biodiversity Impacts and Mitigation

Activity	Potential Biodiversity Impact	Key Mitigation / Control Measures
Site Clearance	• Loss of vegetation and habitat for birds, mammals, reptiles, and invertebrates. • Disturbance or destruction of active bird nests during March–August.	• Avoid clearance during bird breeding season (March–August) unless confirmed clear by an ecologist. • Supervision by the Ecological Clerk of Works (ECoW) during vegetation removal. • Translocation of protected species where necessary under licence. • Grassland clearance will take place as a directional two-stage cut working from the centre outwards, allowing any reptiles or small mammals to disperse. • Clearance will not take place within designated Biodiversity Protection Zones (BPZs).
Site Set-Up (compounds, storage, lighting, fencing)	• Damage to retained habitats. • Disturbance from light spill, noise, and vibration. • Pollution from poor fuel or chemical storage.	• Locate compounds and storage areas on previously disturbed ground. • Install pollution prevention measures (bunds, drip trays, sealed containers). • Use downward-facing, low-intensity lighting. • Install protective fencing around BPZs: • All set-up activities must remain outside BPZs (see Plan 4). • No artificial lighting is to be used unless specifically approved; if required, lighting must be low-lux, directional and avoid treelines and the river corridor. • Fuel, cement, chemicals and hazardous substances must be stored in bunded, secure areas within the site compound. All personnel to follow designated access routes as defined in the site induction and Pollution Control Map
Groundworks and Excavations	• Loss or fragmentation of habitats. • Risk to burrowing mammals. • Soil erosion and sediment run-off to watercourses.	• Carry out pre-works checks by ECoW. • Maintain sediment control measures (silt fences, settlement tanks). • Inspect excavations daily; install escape ramps for trapped animals.
Assembly Areas and Construction Operations	• Noise and vibration affecting wildlife. • Dust deposition on vegetation.	• Apply dust suppression (damping down, wheel washing). • Restrict working hours to daylight where possible.

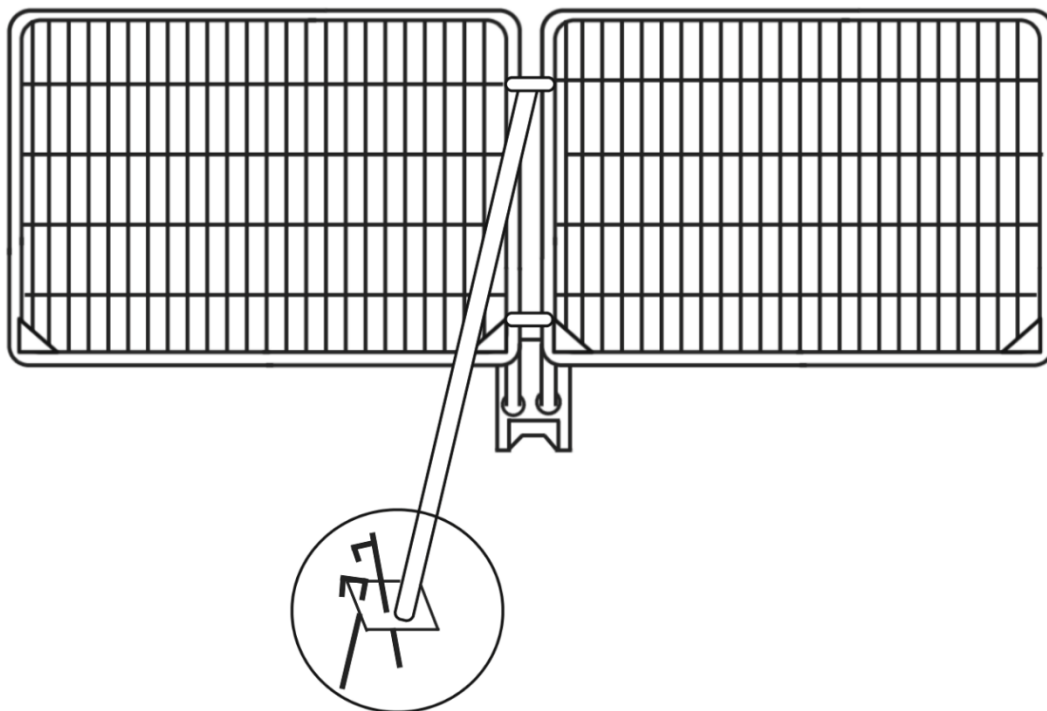
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	Increased traffic and risk of accidental pollution.	- Regular inspection of plant and machinery for leaks. - Adhere to Pollution Prevention Guidelines (GGPs).
Pollution Risks and Emergency Incidents	- Acute pollution to soil, groundwater, and surface water. - Direct harm to flora and fauna.	- Store fuels and chemicals securely and away from watercourses. - Maintain spill kits on site and train staff in their use. - Report and record all incidents; notify NRW if required.
Waste Management and Site Decommissioning	Disturbance or destruction of reinstated habitats.	- Segregate and dispose of waste through licensed carriers. - Reinstate and seed disturbed areas with native species under ECoW supervision.
Works Adjacent to the River Taff (BPZ-2 Exclusion Zone)	Sedimentation or accidental introduction of pollutants.	- Access permitted only for essential ECoW checks. - Procedures in place to minimise run-off. - No machinery or heavy equipment may enter BPZ-2. - Heras fencing installed prior to access and inspected daily. - ECoW oversight required at the start of any river-access activities, although no need for access is anticipated.
Demobilisation and Site Reinstatement	- Damage to reinstated habitats during removal of temporary works. - Failure of vegetation recovery leading to bare ground.	- Removal of silt materials carried out carefully under ECoW guidance. - Vegetation reinstated through natural regeneration or reseeded using locally native species. - Post-construction inspection carried out by ECoW, with any corrective planting or restoration implemented within agreed timeframes.

Appendix 3: Protective Heras Fencing



Wildlife barrier surrounding tree.



Stabilizer strut with base plate secured with ground pins.
Redrawn by Acer Ecology Ltd after BS 5837:2012 (Figure 1).

Appendix 4: Examples of Closed and Open Fronted Bird Nest Boxes

Schwegler Closed Fronted Bird Home



This nest box is for installation on external walls of buildings (including sheds and garages) and is suitable for a range of bird species. With a 32mm hole it allows entry to species such as coal tit, blue tit, great tit, redstart, nuthatch, house sparrow, tree sparrow and other species.

The recommended height is between 1.5m and 5m above ground with a south-east to south-west orientation.

Cleaning after the breeding season (wait until October) is advised to provide a clean nest for the following year, or utilisation by non-migratory birds for winter roosting.

Schwegler Bird Home



These should never be hung on trees or bushes as this could allow small predators to access the interior and predate nesting birds.

This nest box should always be installed on the external walls of houses, barns, garden sheds etc. It is designed to be hung so that the entrance is to one side (90° angle to wall).

Correctly positioned it can attract species such as black redstart, pied wagtail, grey spotted flycatcher, and occasionally robins and wrens.

Appendix 5: Pollution Prevention Plan / Emergency Response Plan

1. Purpose

This Pollution Prevention Plan (PPP) outlines the management controls, responsibilities, and emergency procedures to prevent pollution incidents during construction activities. It supports Sections 6.7–6.10 of the Construction Environmental Management Plan (CEMP) and ensures compliance with relevant legislation, including:

- The Environmental Protection Act 1990
- The Water Resources Act 1991
- The Environmental Damage (Prevention and Remediation) Regulations 2015
- Control of Pollution (Oil Storage) (England) Regulations 2001
- Relevant Guidance for Pollution Prevention (GPPs) and CIRIA C736

2. Objectives

- Prevent pollution of land, air, and water from construction activities.
- Minimise the risk of environmental incidents through proactive management.
- Ensure that all staff and contractors understand their environmental responsibilities.
- Provide a robust and effective response framework in the event of an environmental emergency.

3. Responsibilities

Role	Responsibilities
Site Manager / Principal Contractor	Overall responsibility for implementing this PPP, maintaining environmental protection measures, and reporting any pollution incidents to regulators.
Environmental Manager / Clerk of Works	Conduct inspections, provide training, maintain records, and oversee corrective actions.
Supervisors	Ensure all team members follow pollution control measures and know emergency procedures.
All Site Personnel	Follow training, use equipment responsibly, and report any spills or leaks immediately.

4. Key Pollution Risks on Site

Construction activities may generate pollution from:

- Fuel, oil, and chemical storage and handling.
- Vehicle and plant refuelling or maintenance.
- Runoff from excavations, earthworks, or exposed soils.
- Concrete pouring and washout operations.
- Waste generation and management.
- Drainage and surface water contamination.
- Accidental releases (spills, leaks, or uncontrolled discharge).

5. Pollution Prevention Measures

5.1 Fuel, Oil, and Chemical Storage

- Store all fuels, oils, and chemicals within bunded, lockable containers on impermeable ground, >10 m from drains and watercourses.
- Bunds to have 110% capacity of the largest container or 25% of total volume, whichever is greater.
- Containers to be labelled and inspected weekly for damage or leaks.
- Spill kits to be located adjacent to all storage areas.

5.2 Refuelling and Maintenance

- Refuelling to be undertaken only in designated, hardstanding refuelling areas.
- Drip trays and absorbent mats to be used at all times.
- Refuelling prohibited within 10 m of watercourses or drainage ditches.
- If mobile bowzers are required, these must be double-skinned and locked when not in use.
- All plant and vehicles to be checked daily for leaks before use.

5.3 Concrete and Cement Management

- Concrete washout to occur only in designated contained washout areas away from drainage and watercourses.
- Waste concrete to be disposed of off-site by licensed contractors.
- Ready-mix deliveries to use spill trays beneath discharge chutes.

5.4 Surface Water and Run-Off

- Designated plant, wheel and boot washing facilities will be present on site; and
- These facilities will be maintained and inspected to ensure effective operation.

5.5 Waste and Material Storage

- Waste to be segregated and stored in covered skips or containers.
- No burning of waste on site.
- Waste removed by licensed carriers only; documentation retained in site waste log.
- Recyclable materials to be prioritised where practicable.

5.6 Dust, Air, and Noise Control

- Water suppression used during dry, dusty operations.
- Stockpiles to be covered or dampened.
- Vehicle engines not to idle unnecessarily.
- Maintain noise suppression measures per Section 6.10 of the EMP.

6. Emergency Response Procedures

6.1 Immediate Actions

1. Stop the source of the spill or leak (if safe).
2. Contain the spill using absorbent materials, booms, or bunds.
3. Protect nearby drains and watercourses — use drain mats or sandbags.
4. Notify the Site Manager / Environmental Manager immediately.
5. Record all details in the Environmental Incident Log.

6.2 Incident Reporting

If pollution enters or threatens watercourses, ground, or air:

- Natural Resources Wales: 0300 065 3000

All incidents must be reported within 24 hours, with a detailed follow-up report issued within 5 working days.

6.3 Spill Kit Deployment

- Spill kits available at high-risk areas, including the designated refuelling area;
- Kits to include pads, booms, granules, PPE, and disposal bags.
- Used absorbents to be disposed of as hazardous waste.

7. Training and Communication

- Site induction to include pollution prevention, spill response, and reporting procedures.
- Toolbox talks every three months or after any incident.
- Spill response drills to be held biannually and documented.
- Copies of this plan to be displayed in the site office and welfare area.

8. Monitoring and Review

- Weekly environmental inspections by the Site / Environmental Manager.
- Monthly audits to assess compliance with PPP measures.
- Review and update this plan:
 - After any pollution incident,
 - When construction activities or site layout change significantly, or
 - Every six months, whichever is sooner.

9. Records and Documentation

- Environmental Incident Log
- Spill Kit Inspection Records
- Fuel and Chemical Storage Inspection Checklists
- Training Attendance Records
- Waste Transfer Notes
- Incident Reports and Corrective Action Logs

10. References

- CIRIA C736: Containment systems for the prevention of pollution (2014)
- GPP 2: Above Ground Oil Storage Tanks
- GPP 5: Works and Maintenance in or Near Water
- GPP 21: Pollution Incident Response Planning

Appendix 6: Contractor Summary and Key Environmental Procedures

1 Purpose

This summary provides a concise overview of the environmental procedures, responsibilities, and key actions required by all contractors and subcontractors working on the Ysgol Rhyd-y-Grug project.

It is designed to be used alongside the full Construction Environmental Management Plan (CEMP) and accompanying toolbox talks.

2 Key Contacts

Role / Responsibility	Company Name	Contact Details
Client	Merthyr Tydfil County Borough Council	Chris Jones Tel: 01685 725000 Email: chris.jones3@merthyr.gov.uk
Principal Contractor and Contract Manager	John Weaver Contractors	Derwyn Pugh Tel: 01792 464004 Email: derwyn.pugh@johnweaver.co.uk
Site Manager	John Weaver Contractors	Russell Williams Mobile: 07377 927 644 Email: russell.williams@johnweaver.co.uk
Site Environmental Manager	John Weaver Contractors	Jenny Jones Mobile: 07304 073 071 Email: jenny.jones@johnweaver.co.uk
Non-licensed Bat Supervision ECoW	Alder Ecology	Roger Martindale Tel :07533 273 939 E-mail rmartindale@btinteneret.com
General ECoW	TBD	-

3. Key Environmental Rules

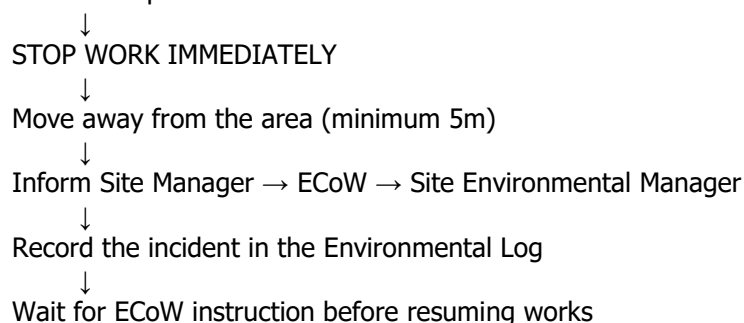
All site personnel must:

- Follow site induction and toolbox talk requirements.
- Keep to designated access routes and stay outside Biodiversity Protection Zones (BPZs).
- Never remove or move protective fencing unless authorised by the Site Manager and ECoW.
- Report any environmental incident or near miss immediately.
- Use spill kits for any leaks and inform the Site Manager straight away.
- Maintain good housekeeping — store waste and materials in designated areas only.

4.Environmental Quick-Reference Flowcharts

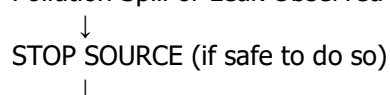
4A. If a Protected Species Is Found

Protected Species Encountered



4B. If a Spill or Pollution Incident Occurs

Pollution Spill or Leak Observed



Use Spill Kit to Contain and Prevent Run-off



Notify Site Manager and Environmental Manager



Record Incident in Log



Environmental Manager to Report to NRW (if required)

4C. Waste and Material Management

Waste Generated



Segregate into Designated Bins (wood / metal / general / hazardous)



Check Licensed Carrier Collection



Record Waste Transfer or Consignment Note



Submit Record to Site Environmental Manager

5. Do's and Don'ts



Do

Attend all toolbox talks and environmental briefings.

Keep fuels and chemicals in bunded areas.

Report all spills, damage, or wildlife sightings.

Use approved access and parking areas only.

Follow ECoW and Site Manager instructions at all times.



Don't

Enter fenced-off ecological protection zones.

Pour cement, wash-out water, or fuel into drains or ground.

Remove or tamper with ecological fencing or signage.

Leave waste or debris outside designated skips.

Assume ecological works can continue without clearance.

6. Environmental Incident Log (Summary Fields)

Date	Incident Description	Location	Immediate Action Taken	Reported To	Follow-up Required

7. Summary Reminder

If in doubt — **STOP WORK** and **ASK the Site Manager or ECoW**.

Protecting biodiversity and preventing pollution is everyone's responsibility.

Appendix 7: Method Statement for Bats (Alder Ecology)

The Alder Ecology Method Statement for Bats recommended the following:

- The provision of a toolbox talk by the ecologist to contractors;
- Bats are protected in Wales under the provisions of The Conservation of Habitats and Species Regulations, 2010 (*sic*) or The Environment (Wales) Act (2016);
- Acts that are illegal under the provisions of the law
- Bat roosts must not be damaged or destroyed during the works guidance provided by ecologist
- Bats must not be killed or injured during the works
- Bats must not be disturbed while occupying a roost
- Entrance and exits to bat roosts must not be blocked or obstructed, or modified
- A pre-commencement bat survey not more than 24 hours prior to works starting and re-inspection of building prior to and during works operations;
- Immediately before the works commence the Ecologist will inspect the work areas with the aid of a powerful torch to ensure no bats are recorded in the work area.
- It may be necessary in high risk areas that a controlled strip of small sections of the roof by the roofing contractor takes place under the direct supervision of the bat expert during works if required. The Ecologist will remain on site until these works are completed.
- Care will also be taken when stripping areas around windows, doors and porches. The areas will first be checked by an ecologists and the soft strip will involve gently levering wooden sections using short handle wrecking bar. All removed material will be checked for torpid (semi hibernation state) bats.
- Maintain building integrity (Both new and old structures) up and until the point of the works to avoid occupation by bats.
- While work continues on site maintain coverings on buildings to prevent free access for bat species. Leave no open voids during work if it falls during at a time when bat species are active. For example, it is advisable to cover openings into the building during overnight cessation of works.
- If a bat is discovered at other, unsupervised times, work will cease immediately and the ecologist will be called for advice. This advice will include leaving the bat to disperse of its own accord, or wait for the licensed handler to rescue the bat from danger and move the bat to a safe location.

- If any bats are encountered works will immediately stop. The bat expert will attempt to rescue bats if in immediate danger and hold them in accordance with the Bat Workers Manual and in a suitable handling box for release in the evening or continued roosting.
- Operatives and contractors are explicitly forbidden from handling bats.
- If bats are present on-site maintenance/repair/ replacement works must cease until advice is sort from Natural Resources Wales (NRW) this may delay to the project.

Emergency Site Action Plan (ESAP)

The Ecologist will be available during the above works and will capture and later release any bats found. Bats will be captured by hand or net and immediately placed into a cloth carrying bag for transport to the ground. Works will temporarily stop whilst the ecologist takes the bat to the trees where the bat will be transferred to an unoccupied Schwegler bat box. The bat box will be fastened into the tree, which is protected from members of the public or construction operative due to the height of installation (2.8m). The bat box will have sufficient rigid internal space and a suitable surface to allow animals to roost naturally and be protected from external noise and movement. These holding conditions will allow animals to spend time to safely emerge later to move to a suitable site if required.

Ecologists Contact Details

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