

Hydro Aluminium Recycling Facility, Wrexham Industrial Estate, Wrexham

Ecological Precautionary Working Method Statement (PWMS)

Prepared For: PACE Pace Architecture Limited on behalf of Hydro Aluminium Deeside Ltd

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1.0 Introduction

1.1 The Environment Partnership (TEP) was commissioned by Pace Architecture Limited, acting for Hydro Aluminium Deeside Limited in January 2026 to produce an Ecological Precautionary Working Method Statement (PWMS) to instruct initial vegetation clearance works at Hydro Aluminium Recycling Facility, Wrexham Industrial Estate, Wrexham (hereafter referred to as 'the site').

1.2 This PWMS was commissioned after the Preliminary Ecological Appraisal (PEA) (TEP Ref: 9871.002) identified habitats on site were suitable to support several protected species, including amphibians, hedgehogs, nesting bird, reptiles, bats, badger, otters and invertebrates. This PWMS is specified for vegetation removal that avoids adverse impacts on of these species.

Scope

1.3 This Precautionary Working Method Statement (PWMS) has been produced for protected amphibians, hedgehogs, nesting bird, reptiles, bats, badger, otters and invertebrates during vegetation clearance works to assist the current land management of the site and site access for site personnel.

1.4 Within this PWMS, all vegetation clearance instruction will only apply to low lying scrub and vegetation. At this stage, removal of any trees should be informed by an arboricultural survey, after consideration from the tree officer, and after ecological surveys are completed to ensure no ecological impacts on protected species, such as bats and breeding birds.

Site Context

1.5 The Site lies approximately 4km southeast of Wrexham town centre (approximate central grid reference: SJ 37557 49230). The Site is bound by Wrexham Industrial Estate to the north and west, Bridge Road and HM Prison Berwyn to the east, Clywedog East Road and dwellings associated with Pentre Maelor.

1.6 Due to the large scale of the development, it crosses many different habitats that are of ecological interest such as grasslands, scrub, hedgerows, watercourses, ponds, and woodlands.

1.7 These habitat features of ecological interest on site, and within influencing distance of the site, have habitat suitability for amphibians, hedgehogs, nesting bird, reptiles, bats, badger, otters and invertebrates.

Species of Consideration

1.8 The results of the UK Hab survey identified that specific measures are required to prevent damage or loss to the following species during the scrub and vegetation clearance:

- Amphibian
- Breeding birds
- Hedgehog
- Reptiles
- Bats
- Badger
- Otter
- Invertebrates

2.0 Precautionary Working Methods

2.1 This PWMS must be always adhered to by the project manager, the client, and all contractors working on site during the initial stage of the project. This is to be considered a 'live' document during the vegetation clearance works.

Ecological Clerk of Works (ECoW)

2.2 An Ecological Clerk of Works (ECoW) will be appointed to provide ecological support and supervision as required throughout the duration of the works. The appointed ECoW will be an experienced ecologist and member of CIEEM.

2.3 The ECoW will be responsible to the appointed contractors ' biodiversity champion' who will update the ECoW with regards to the programme of works as and when required where impacts on ecologically sensitive areas may be affected. The ECoW will then advise on potential ecological impacts that will require supervision or pre-commencement oversight.

2.4 The ECoW will be responsible for providing ecological 'toolbox talks' as part of the site induction process, to all relevant sub-contractors with regards to potential impacts to protected species and habitats on Site and their status, if required.

2.5 The 'biodiversity champion' on site will be responsible for scheduling the ECoW and will be responsible for general monitoring of the site during construction for the presence of any protected species. Should any animals be found within the site, particularly during any excavations, the biodiversity champion will contact the ECoW for further advice.

Habitats

2.6 The area to be cleared includes broadleaved woodland that **should not be disturbed** during the vegetation clearance works. Only strimming and scrub removal processes are required, and special attention should be made to not damage the trees or their roots during the vegetation clearance.

Broad-Leaved Woodland

2.7 Suitable tree protection measures should be put in place to avoid damage to the retained trees and woodland following guidelines set out in BS 5837:2012 Trees in Relation to Design, Demolition and Construction. A felling licence under the Foresty Act has an exemption for trees with a stem diameter not exceeding 8 cm (measured at 1.3 m above ground level).

Vegetation Management

2.8 Arisings from the work i.e. mulching, brash, and grass cuttings must be removed from site or placed in a suitable location on site that won't be disturbed by clearance or site personnel. This is because these materials provide refuge opportunities for amphibians, reptiles and hedgehog.

Storage and Access Control

2.9 All material storage areas will be located away from woodland edges. Materials should be stored off the ground on pallets or in bags to prevent soil compaction and accidental damage. Vehicle movements will be restricted to designated tracks and areas of hardstanding only.

Pollution Prevention

2.10 Follow best practice pollution prevention guidelines to avoid contamination of woodland soils. Fuel and chemical storage will be on impermeable bases within bunded areas, located at least 15m from any woodland. Spill kits will be available on site, and any spillages reported immediately to the Biodiversity Champion.

Monitoring and Supervision

2.11 The Biodiversity Champion will conduct regular checks to ensure fencing integrity and compliance with protection measures. Any tree safety concerns or accidental damage must be reported immediately to the Project Ecologist and Arboriculturist for advice.

2.12 Existing access tracks into the site will be maintained. Vehicular or plant access should adhere to these access routes where feasible to prevent tracking over areas where protected or notable species could be present. If it is not possible to do so, an ecologist should be contacted for advice.

Fauna

2.13 The site requires the removal of dense scrub and grassland vegetation with consideration of amphibians, hedgehogs, nesting bird, reptiles, bats, badger, otters and invertebrates. This section details how to conduct the works with consideration to each of these species. If a situation arises regarding a protected species and the contractor is unsure what action to take, advice should be sought from a suitably qualified ecologist.

Timing of Works

2.14 All scrub removal should take place during winter (November to February inclusive), as amphibians, reptiles, hedgehogs and bats will not be active during this period,

and it is outside of the bird nesting season (March to August inclusive). Where practicable and feasible it is recommended that the early hedgehog hibernation period (November to December inclusive) is avoided where possible in relation to the clearance of scrub vegetation. The risk of hedgehog death is increased if they are disturbed during this period.

Amphibians and Reptiles

Baseline Ecology Information

2.15 There is no suitable breeding habitat for amphibians within the site. Three ponds are located within 250m of the site: two are not separated from the site by any barriers, and one is separated by a road. None of these ponds are separated from the site by major barriers.

2.16 The site does however contain suitable sheltering and foraging habitat for common amphibians and reptiles, particularly within the dense/continuous scrub, and earth banks with ephemeral/perennial vegetation offer suitable terrestrial habitat for amphibians. The plantation broad-leaved woodland within the site and Ancient semi-natural woodland north of the site form part of a GCN habitat network throughout Wrexham Industrial Estate.

Relevant Legislation

2.17 Common toad is a Section 41 Species of Principal Importance (SPI) under the Natural Environment and Rural Communities (NERC) Act 2006.

2.18 Reptile species such as slow worm *Anguis fragilis*, common lizard *Zootoca vivipara* and grass snake *Natrix natrix* are given limited protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), protecting them against intentional or reckless killing and injury.

Precautionary Working Measures

2.19 Prior to works commencing, a hand search of any potential sheltering and hibernation features for herptile species within the works area will be undertaken by the ECoW. This will include fingertip searches of the grassland, and hand searches of any features such as log/brash piles and scrub that may be disturbed by the clearance works. Any larger features suitable for sheltering or hibernation, such as rocks and concrete slabs with crevices beneath, can be moved under the supervision of the ECoW if deemed necessary, i.e. for the transport of equipment.

2.20 If any common amphibians are found before or during the vegetation clearance works, these must be taken to a suitable reception area where vegetations works will not be conducted.

2.21 The strimming of scrub/grassland vegetation to ground level will be undertaken using a staged approach. Following the hand search, the vegetation may be cut to 15cm/150mm above ground level. The vegetation must be cut in a single direction only to allow these species opportunity to move away from the area.

2.22 The ECoW will undertake periodic checks of the clearance areas. If confirmed clear, works can proceed and any remaining vegetation can continue being removed.

Breeding Birds

Baseline Ecology Information

2.23 The plantation broad-leaved woodland, dense/continuous scrub and hedgerow offer suitable foraging and nesting habitat for a range of common bird species. The ephemeral/perennial vegetation and amenity grassland offer additional foraging habitat but are unlikely to support ground nesting birds due to disturbance from workers and passing vehicles. The ancient semi-natural woodland to the north of the site has the potential to support a wider range of foraging and nesting birds, including protected and notable species.

Relevant Legislation

2.24 All birds, their nests and eggs are protected by the law under the Wildlife and Countryside Act 1981 (as amended), making it an offence to intentionally or recklessly damage or destroy an active nest from construction to fledging of the young.

Precautionary Working Measures

2.25 If the vegetation clearance works are done within the nesting bird season (March-August), the ECoW will conduct a nesting bird check no more than 24 hours prior to the start of the works. A thorough visual inspection of any suitable nesting bird habitat to be removed will be undertaken to establish the presence or absence of nests.

2.26 If a nest is present, the nest will be viewed by the ECoW from a suitable distance at an identified vantage point for a minimum of half an hour or until occupation status can be established. In the event that an active bird nest is found, the ECoW will provide advice on setting up a suitable exclusion zone around the nest. The extent of the exclusion zone will depend upon the bird species present. The exclusion zone will ensure that there is no disturbance to the nest as a result of the works. Works must not take place within the exclusion zone until the young have fledged. Monitoring visits will be undertaken by the ECoW of the active nest to confirm when the young have fledged.

2.27 If no active bird nests are found, vegetation clearance within the affected area must take place within 24 hours of completion of the nesting bird check. This will ensure that no bird nests are built within the intervening period between the nesting bird check and the vegetation removal.

Hedgehogs

Baseline Ecology Information

2.28 The plantation broad-leaved woodland and dense/continuous scrub within the site offer potential sheltering and hibernating habitat for hedgehog and the amenity grassland and ephemeral/perennial vegetation offer suitable ranging and foraging habitat.

Relevant Legislation

2.29 Hedgehogs are considered SPI under Section 41 of the NERC Act 2006. Hedgehogs are also partially protected under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended), in that they are protected from being killed, injured or taken by certain methods.

Precautionary Working Measures

2.30 Prior to the start of the clearance works, a refuge area will be established / created for any found hedgehogs within an area of the site where the trees and vegetation are undisturbed. This area should be away from where site personnel would cause any disturbance and ideally in a scrubby shaded area.

2.31 A hand search of any potential sheltering and hibernation features for hedgehogs is to be conducted within the clearance areas by the ECoW. This will include fingertip searches of any long grassland, and hand searches of any features such as log/brash piles and scrub that may be disturbed by the clearance works. Any larger features suitable for sheltering or hibernation, can be moved under the supervision of the ECoW if deemed necessary for the hedgehog's safety.

2.32 The vegetation removal will involve the strimming of the scrub/grassland vegetation to 150mm and be undertaken using a staged approach. The vegetation must be cut in a single direction only to allow any species the opportunity to move away from the area.

2.33 If a healthy hedgehog is found during vegetation removal works, the ECoW should take it to the refuge area. If the hedgehog is injured or seems to be unwell it should be taken to a wildlife rescue centre for further care (see Table 1).

2.34 If works are conducted during the autumn, and young hedgehogs are found, as it is immediately prior to the hibernation period these should be taken to a wildlife

rescue centre or vet that accepts wild animals, as it would be unlikely that these would survive the winter.

Bats

Baseline Ecology Information

2.35 The plantation woodland and dense/continuous scrub within the site and the ancient semi-natural woodland north of the site offer suitable commuting and foraging habitat for bats and there is good connectivity to suitable habitats within the wider landscape.

Relevant Legislation

2.36 All British bats are European protected species, afforded full protection under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). Bats are protected from killing or injury, and from disturbance at the place of rest. Bat roosts are also protected from obstruction, damage or destruction (whether or not a bat is in occupation at the time).

Precautionary Working Methods

Timing of Works

2.37 External lighting installation and testing will, where practicable, be undertaken during daylight hours.

2.38 No night-time lighting trials will take place without prior approval from the project ecologist.

Lighting Design Principles

2.39 All lighting will follow best practice guidance (e.g. Bat Conservation Trust / ILP GN08), incorporating the following measures:

2.40 Avoidance first: Lighting will be excluded from bat commuting routes, foraging habitats, and retained boundary features such as hedgerows, tree lines, and watercourses.

2.41 Light will be directed downwards and away from sensitive habitats. Light levels will be kept to the lowest practical lux, with target levels not exceeding 1 lux along ecological features.

2.42 Lighting will be controlled by timers, PIR sensors, or dimming controls to ensure lights are only on when strictly required. Lights will not remain permanently illuminated overnight unless essential for safety.

Unexpected Bat Activity

2.43 If bats are observed showing signs of disturbance or altered behaviour:

- Works will stop in the affected area.
- Lighting will be switched off or reduced.
- Advice will be sought from the project ecologist before works resume.

Badger

Baseline Ecology Information

2.44 The plantation broadleaved woodland, dense/continuous scrub and earth banks within the site and the ancient semi-natural woodland adjacent to the site offer suitable habitat for sett creation.

Relevant Legislation

2.45 Badgers are protected under the Protection of Badgers Act 1992 from killing, injury and certain acts of cruelty. Their setts are also protected from damage, obstruction or destruction.

Precautionary Working Methods

2.46 A pre-commencement survey for badger setts will be undertaken by a suitably qualified ecologist immediately prior to the vegetation clearance and GI works to confirm that no setts are present within the working area or within 30m. The pre-commencement check must include a detailed survey of the off-site woodland for badger setts where it falls within the 30m survey buffer.

2.47 If no badger setts are identified during the pre-construction survey works may proceed.

2.48 In the event that a sett is identified within the site or within 30m of the site, either during the pre-construction survey or during vegetation clearance or construction works, works must stop immediately.

2.49 An appropriate exclusion zone of up to 30m will be established by the ecologist around any potentially active sett entrance. No works should be undertaken within the exclusion zone of an active sett; if works are required within the exclusion zone, the sett must initially be monitored for a period of 28 days by the ecologist and if it is confirmed to be active during the monitoring period, a licence application to Natural England will be required before works can proceed.

2.50 Standard precautionary working measures must be implemented throughout the works to ensure no harm or disturbance occurs to foraging or ranging badgers as a result of the works. The standard working measures are as follows:

- Access into and out of the working area will be along agreed routes only. Machinery and vehicles will not be permitted to move outside of the agreed access routes and working area.
- Excavations will be boarded or otherwise suitably covered at night. Where this is not practicable, a ramp will be provided (at an angle of no more than 45°) to allow any animal that may become trapped to escape.
- Access into and out of the working area will be along agreed routes only. Machinery and vehicles will not be permitted to move outside of the agreed access routes and working area.
- Excavations will be boarded or otherwise suitably covered at night. Where this is not practicable, a ramp will be provided (at an angle of no more than 45°) to allow any animal that may become trapped to escape.
- Pipes stored on site would be capped or if caps are not available, stored vertically to prevent entrapment.
- Any spoil piles present on site will be compacted to prevent being used by badgers for sett building.
- All hazardous materials will be kept off the ground or otherwise stored in protected and fenced areas to prevent badger access.
- Night-time working will be avoided if possible, including within the hour before dusk and an hour after dawn

2.51 If a situation arises regarding polecat and the contractor is unsure what action to take, advice should be sought from a suitably qualified ecologist

Otter

Baseline Ecology Information

2.52 Otter require riparian habitats for foraging and commuting with wetlands in close proximity for shelter. The nearest watercourse is located approximately 30m north of the site, within ancient semi-natural woodland. This watercourse and ancient woodland have not been assessed for their suitability to support otter due to a lack of permitted access. The plantation broad-leaved woodland within the site offers limited suitable terrestrial habitat for otter and no signs of otter were observed during the Extended Phase 1 habitat survey.

Relevant Legislation

2.53 Otters and their habitats are protected under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). The otter is also a SPI.

Precautionary Working Methods

2.54 The ECoW will be given at least 48hrs notice of the proposed start date and timings for the operation to determine any constraints and to make any appropriate arrangements for pre-work surveys.

2.55 The appointed ECoW will ensure that all site operatives receive a “toolbox” talk and are supplied with a copy of the site’s specific method statement.

2.56 Defined construction access routes will be set out to ensure vehicle movements are contained.

2.57 Prior to the development works, the ECoW will walkover the safely accessible site area and note any relevant environmental factors present. No site operative will be permitted to disturb a feature that is potentially identified as resulting from an otter (holt, couch, slide, spraint site etc.) until investigated by the suitable qualified ecologist.

2.58 If otters or their features are identified within or immediately near the development area, works will cease and the environmental teams for the construction and the client should be contacted at the earliest opportunity.

2.59 If works need to continue over one day, any excavations will be boarded or otherwise suitably covered overnight to prevent entrapment of otters and other animals. Any excavations which cannot be covered will include otter ramps (at an angle of no more than 45°) to allow any animal that may become trapped to escape. These excavations will also be inspected every morning and will be filled in once works have completed.

2.60 All hazardous materials will be kept off the ground and stored in protected and fenced areas to prevent otter access. No Fuel, oil or any other potentially harmful or polluting fluids / chemicals are to be stored within 10m of the Brook.

2.61 Night time working will be avoided, including within the hour before dusk and an hour after dawn.

2.62 If lighting is needed, this will be minimised to the lowest practical levels to enable safe working and to ensure that suitable habitat for otter is maintained adjacent to the site. Any lighting is to be directional and low spill (use of shields) and directed inwards to work areas rather than outward facing towards connecting habitats.

2.63 If an injured otter is found on site, this should be taken to a nearby wildlife rescue centre or vet that accepts wild animals.

Invertebrates

Baseline Ecology Information

2.64 The plantation broad-leaved woodland, dense/continuous scrub and ephemeral/short perennial habitats within the site provide suitability for a range of common and notable invertebrate species. The amenity grassland and bare ground offer suboptimal habitat for invertebrates.

2.65 The ephemeral/perennial vegetation within the site offer suitability for dingy skipper and grizzled skipper butterflies. These species have been recorded within the grounds of HMP Berwyn, approximately 0.3km south of the site.

Relevant Legislation

2.66 Dingy skipper and grizzled skipper are Section 7 Species of Principal Importance.

Precautionary Working Methods

2.67 Wherever practicable, works affecting suitable invertebrate habitat will be undertaken outside the main flight periods of dingy and grizzled skipper (typically April–June, weather dependent).

2.68 If works must occur during the flight period, additional safeguards will be implemented as outlined below.

Habitat Protection Measures

2.69 Areas of suitable or potential skipper habitat will be clearly defined on-site prior to works commencing using fencing or barrier tape.

2.70 No storage of materials, vehicle movements, or temporary compounds will be permitted within isolated habitat areas.

Vegetation Management

2.71 Any vegetation clearance will be kept to the minimum area necessary.

2.72 Clearance will be undertaken in a directional manner, working from the centre of the site outwards to allow mobile invertebrates to disperse into retained habitat.

2.73 Strimming or cutting will be undertaken at a raised blade height to avoid damage to larval foodplants and ground structure.

2.74 Herbicide use will be avoided within or adjacent to suitable skipper habitat unless absolutely necessary and under ecological advice.

Ecological Supervision

2.75 An Ecological Clerk of Works (ECoW) will be available to provide advice should suitable habitat be encountered unexpectedly during works.

2.76 Any unexpected findings of significant invertebrate interest will result in a temporary cessation of works in the affected area until appropriate mitigation measures are agreed.

Post-Construction

2.77 Where habitat disturbance is unavoidable, reinstatement will aim to create or enhance suitable skipper habitat through the use of appropriate seed mixes and ground treatment to promote sparse sward conditions.

2.78 Long-term habitat management recommendations will be provided to maintain suitability for dingy and grizzled skipper.

3.0 Emergency Measures

3.1 If an injured animal is found on site, this should be taken to a nearby wildlife rescue centre or vet. Details of the nearest wildlife rescue centres to the site are provided in Table 1.

Table 1: Contact details for the nearest Wildlife Rescue Centres to the site

Name	Address / Location	Telephone Number(s)	Distance / Direction
RSPCA Stapeley Grange Wildlife Centre	RSPCA Stapeley Grange London Road Nantwich CW5 7JW	0300 123 0722 0300 1234 999	26.5 miles east

WARRINGTON

401 Faraday Street
Birchwood Park
Warrington
WA3 6GA

T: 01925 844004
E: tep@tep.uk.com

MARKET HARBOROUGH

The Reynard Suite
Bowden Business Village
Market Harborough
Leicestershire
LE16 7SA

T: 01858 383120
E: mh@tep.uk.com

GATESHEAD

Office 26 Gateshead
International Business
Centre
Mulgrave Terrace
Gateshead
NE8 1AN

T: 0191 6053340
E: gateshead@tep.uk.com

LONDON

8 Trinity Street
London
SE1 1DB

T: 020 3096 6050
E: london@tep.uk.com

CORNWALL

Nr Falmouth
Cornwall

T: 01326 240081
E: cornwall@tep.uk.com