



Construction Environmental Management Plan

Land off Tirbach Road,
Ystalyfera
Neath Port Talbot

Housing Development

May 2023

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1. Introduction

- 1.1 The site which is the subject of this report is part of a larger area of previously developed land proposed for residential development which totals 3.5 hectares situated off Tirbach Road, Ystalyfera, in the county of Neath Port Talbot. See Fig. 1 for location.
- 1.2 The land within the site boundary consists predominantly of previously developed land, colonised by a mixed scrub and ephemeral/short perennial vegetation, with large areas of hardstanding and bare ground with broad-leaved woodland forming a central belt and a riparian corridor along the eastern boundary. Drainage ditches, ephemeral standing water and a pond were present during the PEA.
- 1.3 This report is to be read in conjunction with the Biodiversity Enhancement Plan (I&G May 2023).
- 1.4 This document seeks to satisfy the Construction Environmental Mitigation Plan requirements to accompany previously submitted Ecological reports and the Biodiversity Enhancement Scheme (I&G May 2023).
- 1.5 Following the submitted Preliminary Ecological Appraisal report (I&G Oct. 2019) opportunities to mitigate for loss and enhance habitats for biodiversity are set out in the Biodiversity Enhancement Scheme (May 2023). report by I&G Ecological Consulting Ltd **which should be read in conjunction with this CEMP.**
- 1.6 No additional visits to the site were undertaken, all recommendations have been based on information and recommendations within the aforementioned Ecological survey reports as submitted to the Planning Authority in relation to this development.

2. Site Location and Description

- 2.1 The site is an area of former mine workings and tip, in Ystalyfera, in the county of Neath Port Talbot (See Fig. 1 for location).
- 2.2 The land within the site boundary consists predominantly of previously developed land (hard standing, gravel, buildings) with developing scrub communities. See Fig. 2 for aerial image of habitats in context with surrounding development.



Figure 1. Location of the site to be developed Grid Ref: SN77140948



Figure 2. Aerial image of site (approx boundary marked red)

3. Sensitive Ecological Receptors

3.1 Woodland:

There are 2 belts of Broadleaved woodland, one of which forms the eastern border which flanks the Afon Twrch, the other is central belt, effectively forming the western boundary (See Fig. 6). Both woodlands support tree species typical of the area (Alder, Sycamore, Hazel, Ash, Birch and Oak). Ground flora includes Common Dog-violet (*Viola riviniana*), Hart's-tongue fern (*Asplenium scolopendrium*), Enchanter's Nightshade (*Circaea lutetiana*), Scaly Male Fern (*Dryopteris affinis*) and Lesser Celandine (*Ficaria verna*).

3.2 Scrub:

There are patches of both dense and scattered scrub throughout the site. In places Butterfly Bush (*Buddleia davidii*) is the dominant species, while in other areas native species including Willow (*Salix* spp.), European Gorse (*Ulex europaeus*), Western Gorse (*Ulex gallii*), Broom (*Cytisus scorpius*) and Bramble (*Rubus fruticosus* agg.) are more dominant.

3.3 Flight lines/commuting corridors:

Wildlife species using the woodland-edge forming the site boundaries would be deterred from foraging and commuting here by the presence of increased light levels at night.

3.4 Protected species:

The mosaic of habitats is likely to support a range of species. The Reptile survey (I&G 2019) results signify that the site is not being utilized by Reptiles. However, there are a number of small waterbodies (ditches, ephemeral standing water) which may support Amphibians. Common Frog and Common Toad were both recorded during the survey. The woodland will support Bats and potentially Badger.

3.5 Sensitive Ecological Receptors Off Site

Protected Sites and Watercourses

The PEA noted a number of Statutory and Non-Statutory Protected Sites identified during the Aderyn Data Search. There are a number of SSSI sites surrounding the Planning Site, however they are all in excess of 3km away, and it is considered unlikely that the development will have any adverse effect on such sites. See Fig. 3 for SSSI locations.

All watercourses in NPT are designated as SINCs. The closest feature is the Afon Twrch which runs along the eastern boundary of the site. Any watercourses close to the site (whether connected to protected sites or not) will need to be protected from direct and indirect pollution resulting from construction. **See Appendix 3 for Pollution Prevention Methods.**



Figure 3. Protected Sites surrounding Planning Site (courtesy. Defra/Magic)

4. Mitigation Strategy and Recommendations

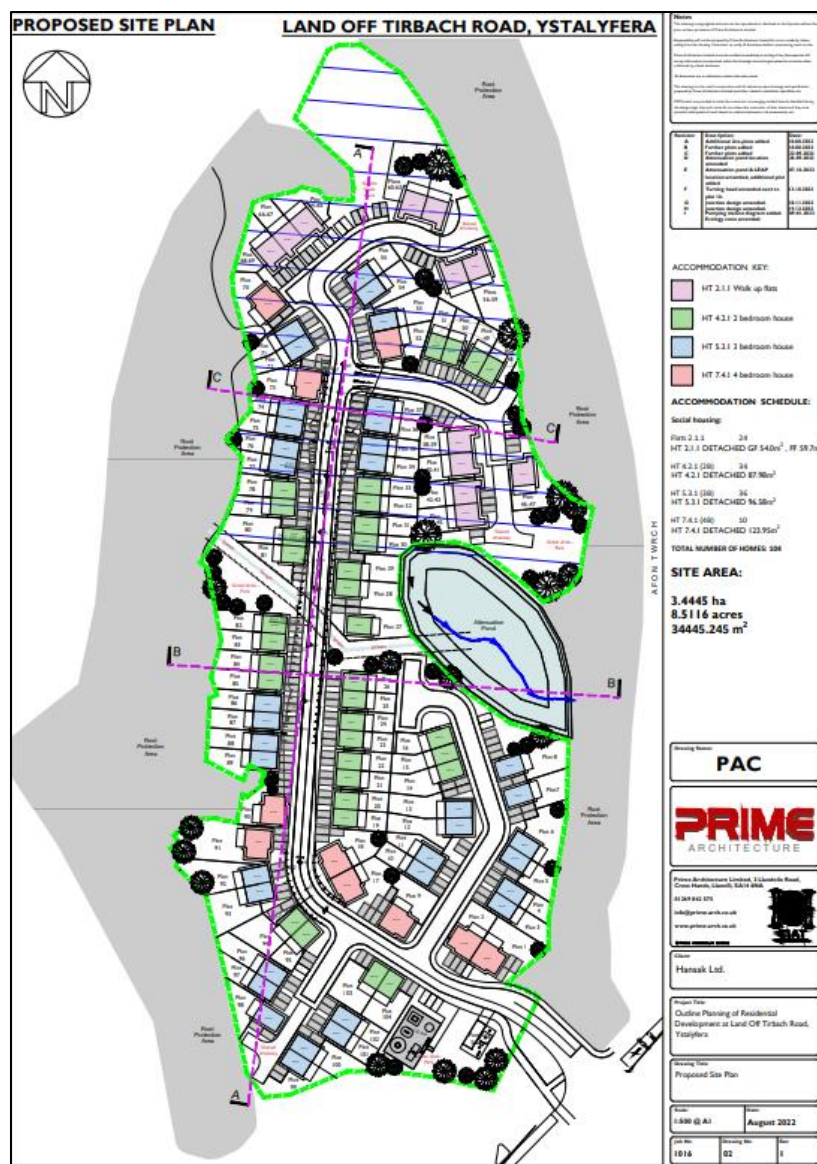
4.1 Habitats

4.1.1 Woodland

Construction Impacts:

It is a recommendation of the PEA that all woodland is to be retained and protected from development. Trees have the potential to be adversely impacted due to proximity of construction, installation of boundary fences, machinery movements and materials storage.

The proposed site layout indicates the tree root protection zone (marked grey around the site perimeter). See Fig. 4 below.



The client and agent shall ensure that:

- the site manager and all other personnel are provided with this document
- all planning conditions relating to underground works, services, trees and landscaping are cleared before development commences
- all requirements of this Tree Protection Scheme are adhered to
- the site manager is updated of any approved changes or variations to this document

The client and site manager shall ensure that:

- a copy of this document and any associated plans are easily accessible for site personnel to refer to before and during the time construction activity is taking place
- all personnel working on the site are made aware of the tree protection plan and arboricultural method statements covering any activities they will undertake. This duty includes delegating the task of briefing personnel in the absence of the site manager.
- The tree protection measures are left in place until the construction phase of development is completed, except with the written consent of the LPA.
- site personnel are updated of any approved changes or variations to the approved tree protection measures.

All personnel must work in accordance with this document at all times, or in accordance with any approved variation.

Operational impacts:

If any sections of woodland-edge are to act as property boundaries, then they may be subject to inappropriate management by householders, including works during bird-nesting season, damage caused by careless strimming operations and herbicide use. Unless the whole site is managed by a competent contractor, residents will need to be made aware of the impacts of inappropriate management, as well as the legislation protecting nesting birds and other protected species.

Mitigation:

The Developer will provide any necessary information, including details of relevant and current Wildlife and Habitat Protection Legislation to potential buyers within their Customer Information Pack.

Tree Cones will be used on each new tree to prevent accidental strimmer damage. Tree guards and stakes will only be removed once the trees are sufficiently established (and clearly visible).

4.1.2 Scrub

Construction impacts:

The current site layout does not allow for retention of any significant area of the scrub habitat within the central zone of the site.

Mitigation:

A minimum 5m buffer strip of native scrub/shrub species will be retained within the woodland-edge buffer and protected as part of the woodland root buffer zone/RPA. Where there is no such scrub around the site margin, native shrubs will be planted. These will be

species which provide resources for wildlife, including nuts, fruit, berries, seeds and nectar. See species list at Appendix 5.

4.1.3 **Flight lines/commuting corridors**

Construction impacts:

Wildlife species using the scrub vegetation, trees and tall herb/grassland along the site boundaries would be deterred from foraging and commuting here by the presence of increased light levels at night.

Mitigation:

Working hours will be during daylight only, i.e., site work will not be allowed to extend into dusk/dawn to minimize disturbance to bats during their feeding period.

Operational impacts:

Wildlife species using the tree-lines and hedgerows along the site boundaries would be deterred from foraging and commuting here by the presence of increased light levels at night.

Mitigation:

It will therefore be necessary to limit light spill onto these habitats to prevent such an impact. Any Lighting or Landscaping scheme will ensure that 'dark corridors' are retained. See Protected Species/Bats section below for more detail.

4.2 **Protected Species (See Appendix 1 for Legislation)**

4.2.1 **Bats:**

Construction impacts:

The Bat Survey Report (I&G May 2023) states that one building on site is being used as a summer roost by Soprano Pipistrelle and that woodland and any scattered mature trees could support roosting bats. Bats are also likely to use the grassland for foraging; site lighting may affect normal feeding behaviour.

Mitigation:

The following Felling Protocol will be implemented and adhered to:

Demolition of the building will be under EPS licence and guidance in the Bat Survey Report will be adhered to.

Tree works

Prior to any arboriculture work - All mature trees which are subject of any management work (pruning, felling, pollarding etc) will be assessed for use by bats by a suitably licenced and experienced Bat surveyor.

As an additional precaution I & G recommend sectional felling of the trees and lowering the branches to the ground. All the cut sections should be left on site for at least 24 hours to allow any bats that may be using the trees to find other roosting sites.

If in any bats are discovered during any stage of the works then the licenced ecologist must be informed and **all work stopped** until a licenced bat ecologist is on site and the bats no longer at risk of harm, NRW will then be approached for advice and an EPS licence applied for if deemed necessary. Natural Resources Wales can also be approached for advice.

Site lighting will be kept to a minimum and be directed away from peripheral vegetation which may act as a flight line.

Operational impacts:

Increased light levels from use of street lighting and domestic internal/floodlighting is known to adversely affect the normal behaviour of bats.

Mitigation:

The type of lighting and its placement will be considered on the new buildings to avoid disruption to bats. Any lighting scheme will follow best practice to avoid disturbance of bats and will be designed to maintain dark corridors for bats and other nocturnal animals.

Current lighting plans for the site are not known but they must ensure that exterior lighting is kept to a minimum to prevent any adverse impacts on bats. In particular, external lighting must be carefully designed to avoid any impact upon bats so must not illuminate the trees along the eastern boundary. Where external lighting is necessary, this should utilise a number of key design points to limit any impact, as follows:

- Low level lighting pointed towards the ground; LED bulbs to be used of 2800 Kelvin and below (Warm White light and not daylight);
- Use of light shields and hoods to direct the light downwards and prevent vertical and horizontal light spill; and
- Use of passive infrared (PIR) motion sensors on timers to ensure lights only come on when necessary.

Further information on bats and lighting can be found on the Bat Conservation Trust website www.bats.org.uk and the latest guidance in association with the Institution of Lighting Professionals can be found at <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>.

NOTE: Bats could be present all year round, especially if making casual use of the site. If bats are encountered I&G should be consulted and advice sought. Natural Resources Wales (Tel. 0300 065 3000) will also be able to help.

4.2.2 **Birds:**

Construction impacts:

Site clearance at an inappropriate time of year will increase the risk of harm to nesting birds. Reduction of habitat may affect the integrity of local populations of species as they would feed on seed heads, invertebrates etc provided by scrub and ephemeral/short perennial vegetation. Birds will also utilise mature trees and scrub for commuting (stepping stones between habitats across and beyond the site).

Mitigation:

All tree and scrub clearance work will, where possible, be undertaken to avoid the bird breeding season (i.e., March to August inclusive) in order to minimise disturbance to nesting birds. If works must commence any time between the 1st of March and the end of August, a nesting bird check will be undertaken on the site by a suitably experienced Ecologist. If an active bird nest is found, the nest area will be marked, and will be protected from disturbance or harm as advised by the Ecologist. Works will not commence in the identified area until an Ecologist can confirm the young have fledged and the nest is vacant.

As all occupied nests are protected by the Wildlife and Countryside Act 1981, scrub or dense vegetation harbouring any nests must not be disturbed or removed until nesting is completed as to do so would be an infringement of the current legislation.

Operational impacts:

Residents may manage bird habitat at an inappropriate time of year.

Mitigation:

Unless the whole site is managed by a competent contractor, residents should be made aware of the legislation protecting nesting birds and other protected species. The Developer will provide any necessary information, including details of relevant and current Wildlife and Habitat Protection Legislation to potential buyers within their Customer Information Pack.

4.2.3 Reptiles and Amphibians:

Construction impacts:

Mitigation measures are required to ensure that amphibians and reptiles on site are protected during the development phase from killing, injury and capture within suitable habitats within the site. In the absence of mitigation, animals could possibly be trapped within excavations and subsequently killed when they are filled, or utilise spoil piles for refuge and hibernation purposes and subsequently be injured or killed.

Habitat loss is inevitable, and the current site layout does not allow for retention of any suitable habitat.

Mitigation:

It is proposed that habitat manipulation be undertaken, in a phased approach under ecological supervision; a gradual and stepwise reduction in potential habitat in order to encourage natural dispersion from the site. This process can begin once the hibernation period is over, generally this is accepted to be March but will ultimately be determined by weather conditions (all steps will only be carried out when it is mild and dry to allow individuals to move of their own accord). See Section 6. Precautionary Construction Methods below for full details.

The former pond and extant ephemeral standing water habitats will be replaced by an attenuation pond as depicted on the Site Layout Plan (shown at Fig. 4 above). The margins will be planted with suitable native vegetation and a Reptile & Amphibian Hibernaculum will be created adjacent to the pond (See Biodiversity Enhancement Scheme I&G May 2023).

Operational impacts:

Few impacts can be envisaged at this stage, other than a potential reduction in access to suitable habitat created by typical plot boundary treatments such as brick walls or close-board fencing. The gardens may well provide suitable replacement foraging and hibernation for species such as Slow Worm and Common Frog, depending on the planting and level of usage/presence of domestic animals.

Mitigation:

Any boundary fences will be either of an open mesh material or if close-board fencing is to be used, then a suitable gap must be left between the fence and the ground. This not only ensures free passage for animals but also lengthens the lifespan of the fence.

4.3 General Recommendations:

Work must only be carried out during the appropriate seasons, in order to comply with current legislation and best practice principles. See Table 1 below.

4.4 Implementation & Supervision:

Careful planning and supervision of contractors will seek to ensure that disturbance to habitats which are to be retained, and species of significance (whether protected, of conservation concern, or undesignated), is kept to an absolute minimum. Future site maintenance will also have due regard to the well-being of all habitats, flora and fauna, details of which will be set out in any LMMP/S to be agreed.

There should be ecological input at key stages of development; an independent Ecological Clerk of Works (ECoW) will be appointed prior to commencement of construction.

All site personnel will be made familiar with the ecological requirements of the site; The ECoW will deliver initial induction talks to all construction personnel which will ensure that they are made aware of any ecological issues relevant to the site, such as protected species, invasive species, sensitive (and retained) areas of habitat etc, as well as best practice to ensure good animal welfare (such as covering over any pits or trenches at night).

The ECoW will act as a Watching Brief during operations including, but not limited to: Tree felling, tree pruning, translocation of hedgerow and any other operation deemed to have the potential to adversely affect wildlife.

Erection of protective fencing e.g., for any retained habitat and RPZ will be overseen by the ECoW.

The ECoW will also guide and assist contractors tasked with installing bird boxes, bat boxes and any other compensation or enhancement measures (as set out below).

All the recommendations in the EMP/CEMP and relevant associated documents must be translated into appropriate clauses in works contracts and be specified in appropriate method statements. The ECoW should, where appropriate, approve all documents and plans that may affect important ecological features identified, particularly where there are legal implications, such as the security of protected species and important habitats.

Table 1. Timing of ecological works commonly undertaken, to ensure minimal impact to biodiversity

Action	J	F	M	A	M	J	J	A	S	O	N	D
Hedgerow/scrub management (avoiding)												
Habitat manipulation (reptiles)												
Grassland clearance (Dormice)												
Translocation of trees												
Planting of new hedgerow shrubs and trees												
Erection of bat and bird boxes, creation of reptile												
New wildflower seeding												

5. Ecological Compensation and Enhancements

- 5.1 There are a number of opportunities afforded by the development layout to provide additional or enhanced habitat for species including Invertebrates, Bats, Small mammals and Reptiles. **For details of such enhancements please refer to the separate report Biodiversity Enhancement Scheme, I&G Ecological Consulting Ltd, May 2023.**

6. Precautionary Construction Methods

- 6.1 Prior to any construction work, including site clearance, a Pre-commencement Check for Badger will be undertaken. See Appendix 4 for details.
- 6.2 Prior to any site clearance, root protection zones will be marked out for all retained trees, in line with BS 5837:2012 – Trees in relation to construction (if required). A minimum 3m root protection zone will be marked out for all hedgerows to be retained.
- 6.3 Prior to any soil stripping, vegetation within the development site will be reduced in height to encourage small mammals and reptiles to move away from the cut area. See Habitat Manipulation Sequence below.
- 6.4 No night time construction working will be permitted. If it is necessary to light any part of the works area, lighting will point away from the sensitive ecological receptors on the site boundary.
- 6.5 Trenches left open overnight will have a plank placed sloping down into one end to allow any mammals/amphibians to climb out and not become trapped. Any pits will be covered at night.
- 6.6 **Habitat Manipulation sequence:**
Populations of Amphibians and Reptiles are expected to be low, therefore it is deemed sufficient to follow standard clearance protocol, and translocate individuals to suitable retained habitat within the site or land ownership. Before the site clearance commences, this procedure will be made known to all operatives and the Ecological Clerk of Works will be present to remove animals as clearance proceeds.
- a) Manipulation sequence to take place in suitable weather conditions during the reptile active season (generally accepted as March to September inclusive, but this may be extended if conditions are mild/suitable).
- b) All potential reptile refugia currently on site, to be carefully removed by hand e.g., debris piles, fallen trees etc. Take off site (or place in skip) to prevent them being re-inhabited.

c) Gradual reduction of grassland and scrub area (one third of the area at a time), as follows:

- ☐ Reduce (using handheld machinery) height of vegetation to 30 cm, working from north to south in each section (see Fig. 5).
- ☐ Leave undisturbed for 5 days.
- ☐ Further reduce height of vegetation- to ground level.
- ☐ Repeat for each third of the site, working towards the south.
- ☐ Maintain grassland at ground level height via regular cutting/trimming or chemical treatment.
- ☐ Always remove all cuttings ('arising') from the site - to prevent them becoming refugia, or place in semi-shade within the retained undisturbed areas (e.g., woodland edge buffer zone which is protected by Heras type fencing).
- ☐ All potential refugia must be removed, and grassland/vegetation reduced to ground level, prior to commencement of any demolition or ground works (including investigative bore holes), except where there is little or no vegetation (e.g., existing track/hardstanding).
- ☐ At this stage, a suitably qualified ecologist must visit the site in order to establish whether the mitigation has been carried out successfully, and that all reasonable protection measures are being employed to ensure that no reptiles will be at risk from the subsequent construction works.
- ☐ If the ecologist is dissatisfied, further mitigation methods will be enforced before construction can commence. Such methods the use of artificial refugia to clear the site of potential resident reptiles/amphibians (depending on time of year/weather conditions).
- ☐ A destructive search of the site, in the presence of an ecologist, will then be undertaken. The first few centimeters of undisturbed areas of ground will be scraped up with the ecologist present to rescue any individual reptiles found. This will be undertaken during periods of warm and dry weather (when reptiles are likely to be active).
- ☐ A toolbox talk will be provided to all construction workers in relation to reptiles (ECoW).
- ☐ Any reptile/amphibian found during the works shall be carefully relocated **to an area of identified retained habitat** (preferably at the northern end of the site), utilising appropriate container and suitably experienced personnel. The container will comprise good ventilation, a secure lid and plenty of dry bulky vegetation such as hay. Best practice methods will be used as outlined within the Herpetofauna Workers Manual (JNCC, 2003).
- ☐ In the unlikely event that Great Crested newt (*Triturus cristatus*) is/are found or suspected, all works will stop immediately, and the acting ecologist contacted for advice.



Figure 5. Plan of phased cutting (starting in southern most section, cutting in a northerly direction as per arrows)

7. Long Term Management Principles & Monitoring (Min. 5yr Post construction)

7.1 Existing trees:

An arboricultural/tree health assessment will be undertaken periodically by a suitably qualified arboriculturalist to ensure that remaining trees are not being adversely affected during the development. Regularity of assessment to be advised by Arboriculturalist/tree surveyor. Findings must be reported in writing to the LPA within a timely fashion for Health & Safety reasons.

Newly planted trees and hedges

All new planting will be subject to a similar assessment to ensure they have established successfully and are growing adequately. Any that have failed to take, will be replaced in the next planting season. Details of failures and re-planting to be reported to LPA.

The base of all newly planted hedgerows will be kept clear of vegetation until the hedge has established. Specialist bio-degradable matting will be placed around the tree bases, avoid using chemicals.

Once established, the hedge can be trimmed to desired height, following best practice (i.e., bi-annually, cutter set to angle, so hedge is not flat topped, no flails).

7.2 **Bat Boxes:**

Once installed, bat boxes will not be disturbed. Boxes will be maintained and replaced as necessary. If any remedial work, or replacement is required, the boxes must only be disturbed by an ecologist with the necessary bat licence. This includes inspection from below with a torch.

7.3 **Bird boxes:** will be checked for soundness and cleared out every year in October. Boxes will be maintained and replaced as necessary.

7.4 **Hedgehog House:** will be checked for soundness and cleared out every September (in readiness for hibernation if the type is suitable for overwintering)

7.5 **Reptile & Amphibian Habitat:** the marginal and peripheral vegetation around the pond will be left to naturally re-generate for the first 2 years. Following an assessment of the ecological condition of the area by an ecologist, it may be necessary to trim 1/3 of the grassland to vary the sward structure. Arisings will be cleared and placed in a pile within the mitigation area. Future maintenance/management schedule to be agreed as recommended by the ecological consultant at the time. Condition assessments and remedial work to be reported to LPA.

7.6 **General:**

This management plan is an evolving document and will be reviewed periodically in conjunction with the Biodiversity Enhancement Scheme (2023), any Landscape Maintenance Plan and Schedule (or equivalent) to be agreed; timescale to be agreed by LPA but it is suggested that review take place after 5 years and the Plan be amended/supplemented as necessary, with input from the site managers, landscape contractors and ecologists to ensure that a workable management scheme is maintained for the benefit of biodiversity. All revisions are to be agreed in writing with LPA.

Appendix 1

LEGISLATION

Bats and the Law

Bats are protected by the following pieces of legislation:

- Schedule 5 and 6 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000)
- The Environmental Damage (Prevention & Remediation) Regulations 2009 – A protected species and its habitat is protected under this legislation as well as others.
- The Conservation of Habitats and Species Regulations 2010 (regulation 41) fully protects all bats and their roosts, making it **an offence to deliberately kill, injure or capture** (take) bats; *to deliberately disturb bats; damage or destroy bat roosts* or resting places (this is considered an “Absolute Offence” as damage and destruction may detrimentally effect the Continuous Ecological Functionality of that roost / resting place); possess or transport a bat or any part of a bat; sell (or offer for sale) or exchange bats or parts of bats.
- For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;
 - i. the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
 - ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
 - iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

Bats are also protected by;

- Appendix III of the Bern Convention
- Appendix II of the Bonn Convention (including the Convention's Agreement on the conservation of Bats in Europe)
- Natural Environment and Rural Communities Act 2006 and now the Environment (Wales) Act 2016.
- All bats are listed in Annex IV of the EC Habitats Directive and the British species listed in Schedule 2 of the Habitats Regulations 1994 (as amended) and are therefore designated as *European Protected Species*. These *protected* species are afforded enhanced protection and more stringent licensing provisions than those protected by the Wildlife and Countryside Act (WACA) alone.

The Hazel Dormouse and the Law

The hazel dormouse is a European Protected Species (EPS). It is against the law to damage or destroy a dormouse breeding site or resting place (summer or hibernation nest), or deliberately to capture, kill, injure or disturb a dormouse.

Dormice are fully protected by the following pieces of legislation:

- The Conservation of Habitats and Species Regulations 2010 (regulation 41) fully protects dormice, making it **an offence to** : -
 - *Intentionally or deliberately capture, injure or kill a dormouse.*
 - *Damage or destroy a breeding or resting place of a dormouse, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection*

- *Intentionally or recklessly disturb a dormouse in a place used for shelter or protection, or deliberately disturb dormouse in such a way as to be likely significantly to affect (i) the ability to survive, breed, rear or nurture their young, and includes in the case of animals of a hibernating or migratory species, to hibernate or migrate or (ii) the local distribution or abundance.*
 - *Intentionally or recklessly obstruct access to a place used for shelter or protection.*
 - *Possess a dormouse (alive or dead), or any part of a dormouse*
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000) fully protects dormice, making it **an offence to:** -
 - *Intentionally or recklessly disturb any dormouse while it is occupying a structure or place which it uses for shelter or protection*
 - *Intentionally or recklessly obstructs access to any structure or place used by a dormouse for shelter or protection*
 - *Sell, offer or expose for sale any dormouse*

For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;

- i. granting the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
- ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
- iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

Dormice are also protected by;

- Natural Environment and Rural Communities Act 2006.
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in Wales

Reptiles and the Law

All of the UK native reptiles are protected by law. The common species of reptiles found in this locality are common lizard, slow-worm, adder and grass snake. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).

All native UK reptiles are considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species (which includes all reptiles species) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

Amphibians and the Law

All of the UK native amphibians are protected by law. The common species of amphibians in this locality are common frog, common toad, smooth newt and palmate newt. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).

The common toad is considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species (which includes the Common Toad) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

Birds and the Law

All species of bird are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended).

Protection was extended by the Countryside and Rights of Way (CROW) Act 2000. Under the above legislation it is an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

Certain species are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and receive protection under Sections 1(4) and 1(5). The protection was extended by the Countryside and Rights of Way (CROW) Act 2000. There are special penalties where the offences listed above are committed for any Schedule 1 species and it is also an offence to intentionally or recklessly:

- disturb any such bird when it is building its nest or while it is in or near a nest containing dependent young; or
- disturb the dependent young of any such bird.

Badgers and the Law

The protection of Badgers Act 1992 makes it illegal to kill, injure or take a badger, or interfere with a sett. In addition, they are listed on Schedule 6 of the Wildlife & Countryside Act 1981, which prohibits certain methods of killing and capture.

Environment (Wales) Act 2016

This act has replaced the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty. It came into force in May 2016.

Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. Under Section 6 public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

Section 7 of the Act places a duty on public authorities to take steps to maintain and enhance biodiversity. This section replaces the duty in section 42 of the NERC Act 2006. The Section 7 Priority Species under this act is a list of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. The Section 7 Priority Habitats is a list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

APPENDIX 2

BARRIER DESIGN SPECIFICATION

Default Tree protection barrier

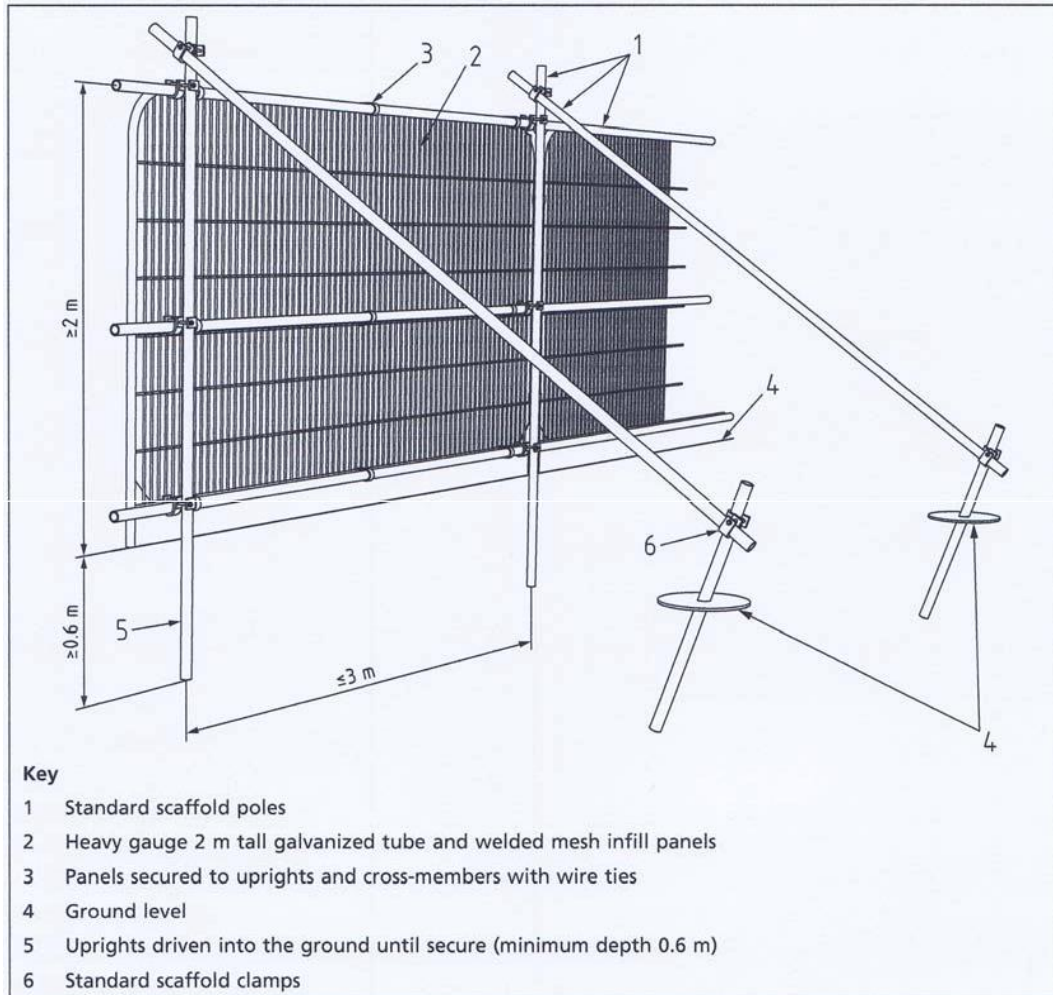


Figure 7. Default tree protection barrier specification

Alternative tree protection barrier design

Two-meter-tall welded mesh panels standing in rubber or concrete feet joined using a minimum of two anti-tamper couplers installed so they can only be removed from inside the protected area. The fence couplers should be at spaced least 1 m apart, but uniformly across the whole barrier. These panels must be supported within the protected area with struts attached to a base plate secured by ground pins as per figure 7a.

Where the fencing is installed above retained hard surfacing and / or it is otherwise unfeasible to use ground pins (e.g. due to underlying services or structural roots), the struts can be mounted on a block tray as per figure 7b.

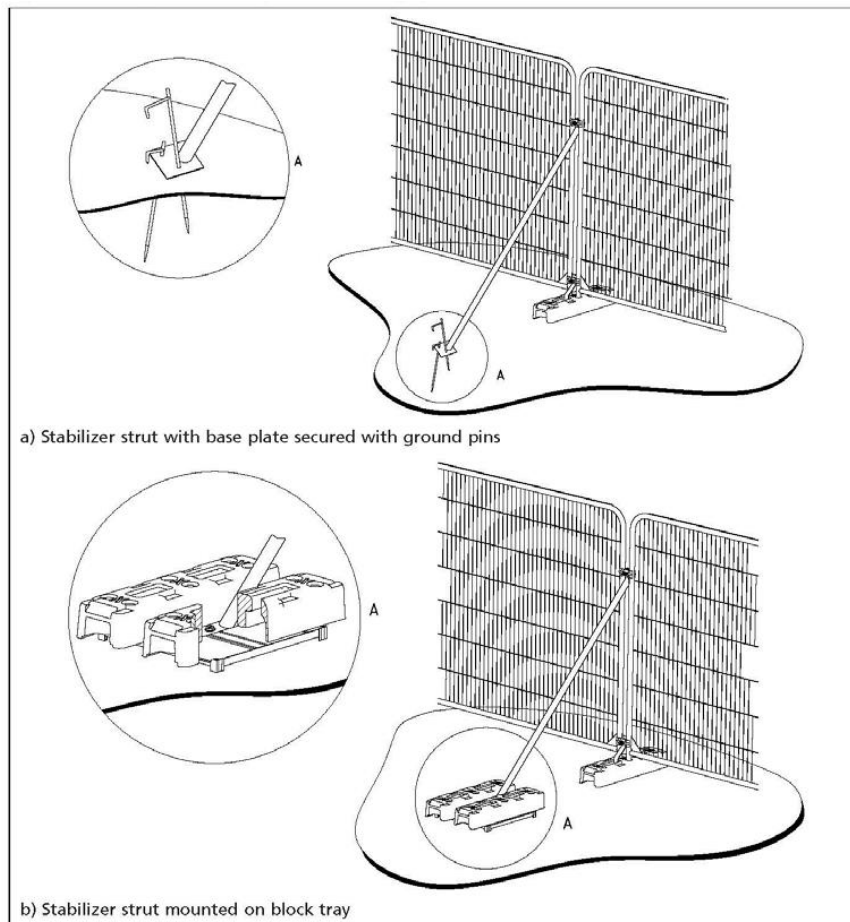


Figure 7b. Above ground stabilising systems

APPENDIX 3

POLLUTION PREVENTION WHEN WORKING NEAR A STREAM OR RIVER

1.1 Legal requirements

Construction and maintenance activities in or near water have the potential to cause serious pollution or impact on the bed and banks of a watercourse and on the quality and quantity of the water. Some activities with the potential for affecting watercourses or groundwater may require either consent in England and Wales under the Water Resources Act 1991 or an authorisation in Scotland under the Water Environment (Controlled Activities) (Scotland) Regulations 2005 (also referred to as CAR) - see reference 1. In Scotland depending on the nature of the activity there are three levels of authorisation.

Types of activity that may impact upon the bed and banks of a watercourse or of a wetland include:

- repairs, maintenance or improvements to any structure in, over or above main river (as defined in the Water Resources Act 1991)
- erection or construction of any structure, either permanent or temporary, in, over or above main river
- diversion of flows
- works within the river channel or a lake/loch
- works within the vicinity of a river, or loch or wetland (in Scotland)
- any works likely to increase the risk of flooding
- **works within 10.0metres of a Main River watercourse or flood defence (in England, Northern Ireland and Wales).** There may be local variations in this distance, it's advisable to contact the appropriate authority at the planning stage of your project to confirm the necessity for an official authorisation.

Types of activity that may remove water from sensitive parts of the water environment or affect other water users

include:

- dewatering of excavations, particularly abstraction of large amounts of groundwater, the appropriate authority (NRW etc) should be contacted early on in your project as the time-scale for obtaining consent or authorisation for these activities can take up to four months from receipt of the application.

Some examples of site-specific environmental hazards and sensitivities:

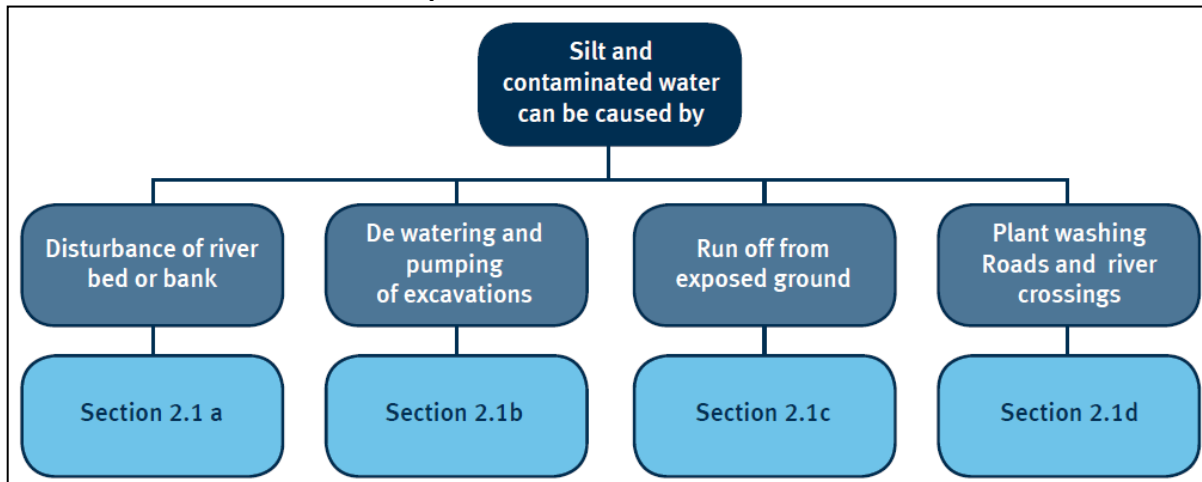
- oil or chemical pipelines
- mains water supply pipelines
- high voltage fluid filled cables
- downstream abstractors
- high amenity areas
- fish farms
- sensitive habitats e.g., wetlands

Potential pollutants from works could include:

- silt – (the most common pollution type when working near streams/ivers) – section 2 below.
- cement and concrete
- chemicals and solvents
- bridge cleaning debris
- herbicides
- waste materials (including hazardous waste)

Ensure you report all pollution events to the relevant authority (NRW, EA, etc) early as doing so may prevent a larger pollution event and will cost less in incident response.

2.1 Activities that can cause silt pollution:



If you can prevent water becoming contaminated in the first place, then it reduces the risk of pollution and the overall cost of your control measures. To avoid silt pollution you should, wherever possible, use methods of work that reduce or eliminate working in the channel and that do not contaminate surface water.

2.1a Disturbance of the river bed / working in the river channel

When you have considered all other options and working in the channel is still necessary, such as in dredging operations, contact us as early as possible in your planning stages to discuss appropriate pollution control measures. Permission for this type of work may take up to four months to obtain. The risk of silt pollution causing an incident will depend on many factors including: -

- likelihood of silt being disturbed
- what the river bed is made of, e.g., silt or gravel
- the conditions in which the work is carried out, e.g., hot weather and low flows

Silt pollution caused by working in surface waters can be minimised or prevented by keeping water out of the works area using appropriate isolation techniques, such as coffer dams and by-pass channels.

2.1b Disposal of water from excavations, dewatering and pumping

Problems with disposal of water from the above activities may be minimised or avoided by:

- preventing water from entering excavations, by using cut off ditches
- considering the impact on groundwater if you use well point dewatering or cut off walls
- using pump sumps in excavations
- supporting inlet hoses above the bed
- discharging on to hard surfaces (concrete slabs/gravel) in to surface waters
- use of appropriate pump rates – to avoid disturbance of bed or bank the maximum rate should be set after consideration of the flow of the river, the location of the discharge and the risk of erosion
- protection of the pump inlet to avoid drawing in aquatic life and other debris
- minimising disturbance of standing water

2.1c Exposed ground and stockpiles

Soil stripping and vegetation removal at the start of a project can increase the volume of contaminated surface water run-off. It can also reduce the area of vegetated land available for disposal of silty water.

You should:

- minimise the amount of exposed ground and soil stockpiles from which the water drains and the period of time of such water drains.
- only remove vegetation from the area that needs to be exposed in the near future
- seed or cover stockpiles
- use silt fences at the toe of the slope, made from geotextiles, to reduce silt transport
- collect run-off in lagoons and allow suspended solids to settle before disposal.

2.1d On-site working

The movement and maintenance of plant on site can generate silt and oil contaminated water. Sources of silt such as plant and wheel washing and site roads and river crossings carry a high risk of causing pollution.

To reduce the pollution risk, make sure that:

- plant and wheel washing is carried out in a designated area of hard standing at least 10 metres from any watercourse or surface water drain
- run-off is collected in a sump - recycle and reuse water where possible
- settled solids are removed regularly
- discharge of contained water goes to foul sewer (if possible) with prior permission from your local sewerage provider – section
- tanker off site for authorised disposal – section

Site roads and river crossings

Run off from site roads and river crossings can contain high levels of silt. Reduce the pollution risk by:

- brushing or scraping roads to reduce dust and mud deposits
- putting small dams in artificial roadside ditches to retain silt
- using existing permanent bridges or pipe crossings for river crossing
- if necessary, building temporary bridges - but not fording rivers
- working from the bank where possible – not in the river

2.2 Disposal of contaminated water - treatment and disposal methods. Where run off water is contaminated with silt or other pollutants such as oil this water must not be pumped or allowed to flow directly or indirectly in to surface waters or groundwater without treatment.

If a discharge to surface waters, groundwater, soakaways or surface water sewers is necessary it may require consent or authorisation from us. Contact the appropriate body early in the planning stage of the project as a consent or authorisation could take up to four months to issue. If a consent or authorisation is issued it will limit volume, amount of silt and the presence of any oil in the discharge and may have conditions for additional substances.

The choice of method for the treatment and disposal of contaminated water will depend on:

- the volume of water
- the area of land available for storage, treatment or discharge
- the amount and type of silt
- the presence of other substances in the water
- the conditions of any consent or authorisation

The table below contains other methods of pollution source control for consideration.

Examples of source control sustainable drainage systems
Porous surface pavements – water permeates through in to the soil or sub-surface reservoir which can then be allowed to discharge slowly rather than directly running off. This will minimise the volume of water that you might need to treat and can also recharge groundwater. Porous pavements need to be protected during installation from blocking by excessive silt contaminated water.
Infiltration trenches – a shallow excavated trench backfilled with stone to make an underground reservoir. Run off is diverted in to the trench and then filters in to the subsoil. The closer to the source the more effective this method will be.
Infiltration basins – a shallow surface impoundment where water is stored until it gradually infiltrates in to the soil of the basin floor. The performance of the basin depends largely on the permeability of the soil and the depth of the water table
Filter drains or French drains - these are similar to infiltration trenches but also allow movement of run off slowly towards a watercourse allowing time for filtration, storage and some loss of water due to evaporation / infiltration.
Swales – grassed wide shallow depressions which lead water overland from a drained surface in to storage or discharge system. They provide temporary storage for run off reducing high flows. Solids are retained and oily residues and organic matter broken down in the top layer of the soil and vegetation.
Filter strips – vegetated sections of land designed to accept run off as an overland sheet flow. To be effective they should be 5 – 15 metres wide and are best employed on the upstream end of a drainage system. They are most effective at removing excess solids and pollutants before discharging to downstream system.

For any other information or if any uncertainty exists Natural Resources Wales should be contacted.

APPENDIX 4 PRE-COMMENCEMENT BADGER SURVEY

A pre-commencement check for Badgers typically involves a systematic search for signs of Badgers by a qualified and experienced ecologist. Checks will be made of the site, the site boundaries and a prescribed distance beyond those boundaries, typically at least 50m. Within this area of search all fence/hedge lines, scrub and woodland habitats should be systematically checked for evidence of badgers. Evidence will be in the form of field signs, a concise yet descriptive list is provided below from NatureScot (Scotland's Nature Agency) Best Practice Badger Survey Guidance Note:

- Faeces: badgers usually deposit faeces in characteristic excavated pits, concentrations of which (latrine sites) are typically found at home range boundaries.
- Setts, comprising either single isolated holes or a series of holes, likely to be interconnected underground.
- Paths between setts or leading to feeding areas.
- Scratching posts at the base of tree trunks.
- Snuffle holes (small scrapes where badgers have searched for insects, earthworms and plant tubers).
- Day nests (bundles of grass and other vegetation where badgers may sleep above ground).
- Hair traces.
- Footprints

The guidance note recommends that “*The optimum time for undertaking badger surveys is February to April, coinciding with a peak in territorial activity and a period when vegetation cover is at a minimum, thereby enhancing the probability of detection of field signs. A secondary but less pronounced peak occurs in October. Surveys can be undertaken outside these favourable periods but field signs will be both less abundant and less obvious*”.

If setts are found within 30m of the site, then they should be categorised as Main, Annexe, Subsidiary or Outlier and further survey such as Bait Marking may be required to determine site usage/activity levels which will inform Mitigation including any Protected Species Licence required by NRW.

APPENDIX 5

Suggested planting mix for scrub belt to benefit biodiversity. Plants must be native and of local provenance.

Common	Bi-nominal
Blackthorn	<i>Prunus spinosa</i>
Dog Rose	<i>Rosa canina</i>
Elder	<i>Sambucus nigra</i>
European or Western Gorse	<i>Ulex europaeus/gallii</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Honeysuckle	<i>Lonicera periclymenum</i>
Rowan	<i>Sorbus aucuparia</i>
Silver Birch	<i>Betula pendula</i>

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We confirm that in preparing this Report we have exercised reasonable skill and care, taking into account the project objectives, the agreed scope of the work and prevailing site conditions.

Advice in this report is based on the judgement of I&G Ecological Consulting and the interpretation of data gathered during the course of their survey on the property named in this document.

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