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Ecological Assessment

Recommended Enhancement Measures

Green Infrastructure Statement

Translocation Method Statement

Reasonable Avoidance Measures

Prepared: June 2024

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GCN Class license: 2021-52257-CLS-CLS

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1.0 Introduction and Site Location

This preliminary ecological assessment was commissioned by Richard Gaskin of Pen-Y-Parc Farm, Halton, Wrexham to provide supporting information for the planning application (P/2024/0052) for the construction of a new agricultural storage building and the extension of the existing silage clamp.

The proposed site is located in Halton, Wrexham, Wales at Pen-Y-Parc Farm (see figure 1 for site context). The proposals include adding 3 sections to the existing silage clamp, which will extend into the corner of an existing species-poor, improved grass field (grazing pasture and storage area) adjacent to a concrete sleeper cow track (see photos). Adjacent to the silage clamp there are also proposals for a new storage building lying in parallel to the existing farm buildings (see figure 2). The site comprises grazing pasture, areas of disturbed bare ground, a hedge (proposed to be removed) and a small earth mound.

The wider landscape consists of agriculture (predominately pastoral fields and scattered farms) dissected by hedgerows and roads along with areas of woodland. The small township of Halton in Chirk Parish lies immediately to the east and the busy A483 road around 125m at the top of a steep bank to the west. The River Dee flanked by woodland on either side meanders to the north and east of the site, around 700m at its closest point. A large McDonalds restaurant and drive-through complex off a series of roundabouts, along with a weekly popular car boot sale is located around 450m to the south of the site

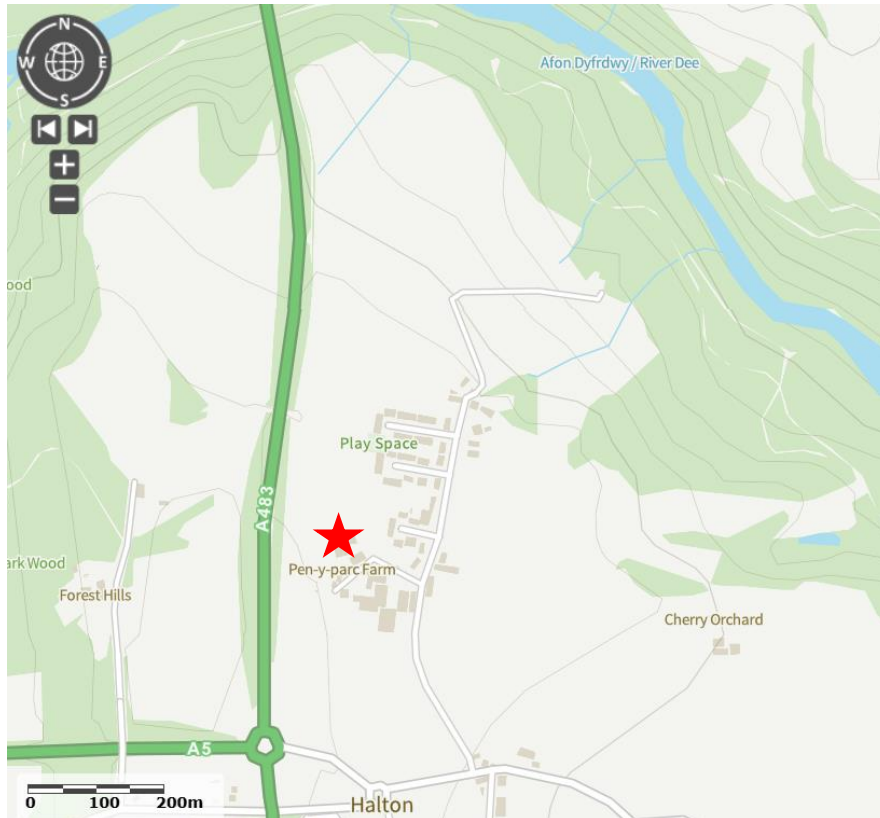


Figure 1. Site context



Figure 2. Red outline showing location of proposals.

A walkover of the site (and area immediately surrounding) was performed on Tuesday 18th June 2024 by Alex Lewis who has over 11 years' experience in preliminary ecological survey and holds a Natural England GCN survey licence (Licence No: 2021-52257-CLS-CLS).

This Preliminary Ecological Assessment provides a baseline assessment of existing ecological value of the site to support protected species, identification of species of ecological interest, highlight proximity and potential impact to any designated sites (SSSI etc) as well as recommendations for appropriate further action if required (surveys, appropriate avoidance measures, mitigation and habitat enhancement) to inform planning and identify opportunities for ecological enhancement.

An enhancement plan for Net Biodiversity Benefit (NBB) and a Green Infrastructure Statement is also included within this report, along with recommended reasonable avoidance measures and a method statement for hedgerow translocation (see Contents).

2.0 Legislation

The following list of relevant UK and European legislation and policies are taken into account as part of this habitat appraisal (full details not listed below).

- ❖ EU Habitats Directive
- ❖ EU Birds Directive
- ❖ Conservation of Habitats and Species Regulations – transposes the Habitat Directive in UK law
- ❖ The Wildlife and Countryside Act (1981)
 - It is an offence to intentionally capture, kill, injure or remove any species listed within the regulations and prohibits interference with places used for shelter or protection and deliberate disturbance of species using such places that may*

significantly affect the survival/local distribution of protected species locally. Further to this all wild birds and their nests and eggs are protected under this Act and for bird species listed under Schedule 1 of the Act it is also an offence to disturb the birds whilst nest building or disturb the dependent young of these species.

❖ Environment Act (2021) – Part 6 – Nature and Biodiversity

❖ Countryside and Rights of Way Act (CRoW) 2000

❖ Hedgerows Regulations 1997

The 1997 regulations make it illegal to remove most hedges without permission from the local planning authority– including if hedgerows run on or alongside agricultural land and if it is longer than 20m. Hedges are a significant wildlife habitat and provide varying degrees of refuge, shelter and connectivity for wildlife including small mammals and birds.

❖ The Protection of Badgers Act (1992)

❖ RAMSAR Convention

❖ Environment Act (Wales) (2016)

Places the onus on public authorities to ‘seek and maintain and enhance biodiversity’, ‘promote the resilience of ecosystems’ and requires there to be a revised list of species and habitats in Wales which are of key significance (the S7 list). Planning proposals should include details of biodiversity enhancement measures with the underlying principle that any enhancements should lead to a ‘net benefit’ for biodiversity within the development site.

❖ Planning Policy Wales

Aswell as the above legislation there are national and local policies in place. Green Infrastructure Assessments and step-wise approach to ensure maintenance or enhancement of biodiversity are amongst the recent changes to the guidance for developers and planners. The most recent of these changes

was in October 2023 in response to the duty to maintain and enhance the biodiversity (NBB) and ecosystem resilience in Wales and includes taking a proactive approach to green infrastructure and expects all new planning applications to include a Green Infrastructure Statement.

3.0 Methodology

A combination of desktop study and site visit was used to inspect the site (OS grid reference SJ 30043 40161) and surrounding area. The proposed development location is shown in figure 1 and outlined in red in figure 2. The area surveyed included everything within this area and the area immediately surrounding it. No investigations were done beyond the ownership boundary points at this time.

The areas that have been considered for this project are:

- ❖ Within the application site boundary (a heavily disturbed area of grass and bare ground used for storage, a small earth mound adjacent the existing shed and the hedgerow).
- ❖ Immediately adjacent habitats (the wider field).
- ❖ Within 2km for designated sites (including SSSI etc).

A desktop study was made of the survey area using Google Earth Pro, DataMapWales and Magic Map Application (www.magic.gov.uk) to identify any key habitats or local protected sites.

The proposed study area was then walked over and inspected by Alexandra Lewis who has over 11 years' experience in field surveys and holds a Natural England GCN survey licence (Licence No: 201620337-CLS-CLS) on the 18th June 2024. The weather conditions were clear and warm (17°C).

During the site visit a search was undertaken for key habitats and signs of the following protected species:

- ❖ Bats
- ❖ Badger
- ❖ Breeding birds
- ❖ Great Crested Newts
- ❖ Reptiles

Records of plants and animal species were noted during the survey and photographs are referenced throughout.

3.1 Limitations

There were no limitations or constraints experienced during the survey – with the visit being undertaken at the optimal time of year.

4.0 Results

4.1 Protected Sites

Two SSSI locations were identified within 1km of the site. Afon Dyfrdwy (River Dee) SSSI meanders to the north and the east of the site – around 700m to the east at its closest point. Nant-y-Belan and Prynella Woods SSSI lies immediately to the east of the River Dee – at around 710m from the site. Due to the distance and small scale/type of development proposed, as well as the small settlement of Halton between the site and SSSI locations – it is considered that there will be no significant adverse effects on these locations.

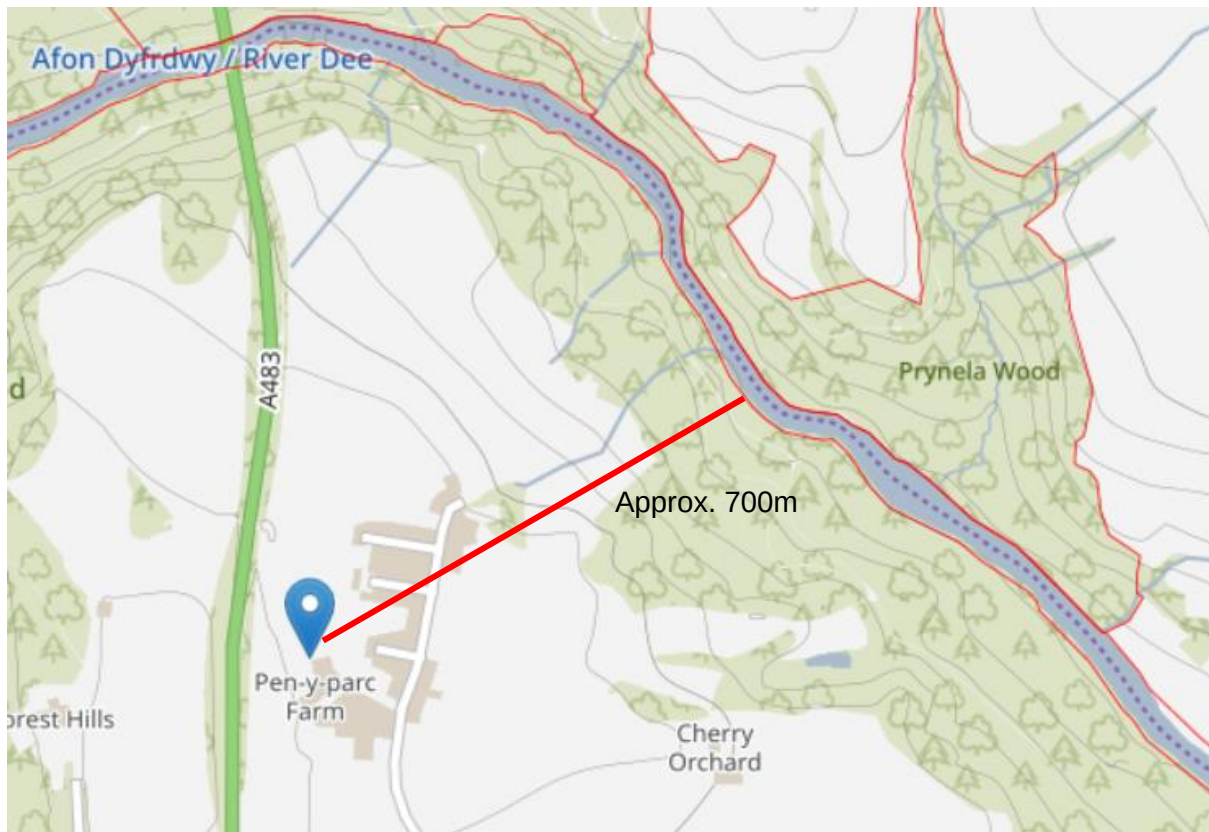


Figure 3. Proximity of the site at Pen-Y-Parc Farm to the SSSI locations

4.2 Habitat and species present on site

The proposed site is in the corner of a grazing field adjacent a heavily trafficked (livestock and farm machinery) concrete sleeper track and water trough and comprises a predominantly grassy triangular area of land that is currently fenced off with electric fence and large areas of bare disturbed ground and patches of tall ruderal habitat. A small hedge (average height up to 2m and around 35m long) runs alongside this triangular area between the existing agricultural building to the south of the site and connecting with a gateway to the north - at the entrance to adjacent fields. To the west of this hedge is an improved, species-poor grass field used to graze livestock and a small earth mound remnant from the construction of the existing agricultural building (see figure 4 for existing layout).

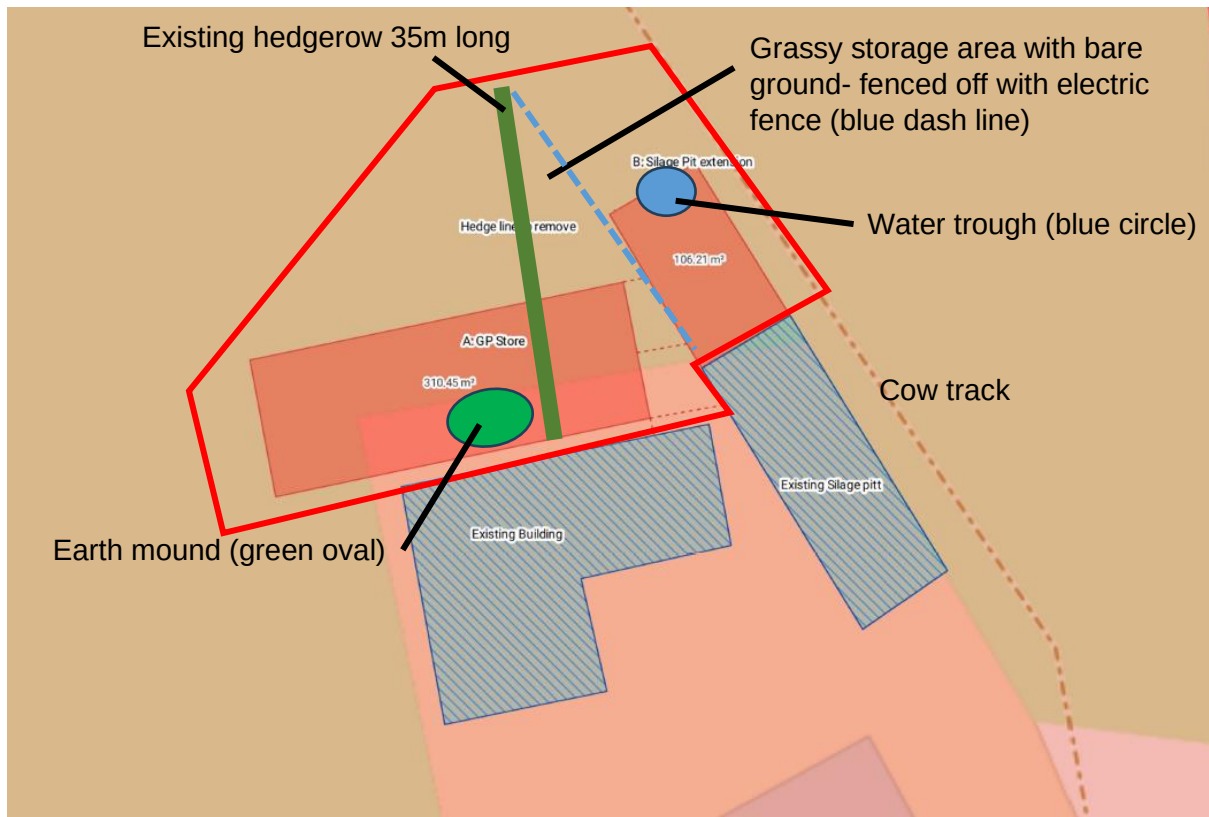


Figure 4. Red outline survey area for species lists and existing site layout (ignore proposed development in transparent red).



Photographs 1 and 2. Existing silage clamp taken from the south east and north east corners facing north towards the site.



Photographs 3 and 4. Proposed location of extended silage clamp taken facing south showing water trough and large area of exposed bare soil.



Photograph 5. Bare ground typical of the area around water trough and existing silage clamp. Photograph 6. Pile of tyres regularly disturbed for use on silage clamp.



Photographs 7 and 8 – Photos taken from the north end of the site facing south, showing items stored in the grassy area, fenced off with electric fence adjacent to the hedge.



Photographs 9 and 10 – taken to the west of the hedge into the grazing field.



Photographs 11 and 12 – earth mound adjacent to the existing agricultural building and the grassy area surrounding.



Photographs 13 and 14. Existing hedgerow - first photo taken facing south and the second photo taken facing north from the top of the earth bank.

The following species (table 1) were identified within the proposed site. It should be noted that these lists are not exhaustive and represent what was observed during the visit – although the visit was conducted at the optimal time of year when plants are flowering, and identification is more efficient. The grass habitat was of little ecological, or biodiversity value and the plants identified here are widespread and characteristic of the wider pasture. No rare/locally uncommon species or invasive species were detected on the site (refer to Wildlife and Countryside Act 1981). The earth mound, which was remnant from the construction of the existing agricultural shed contained less diverse species representative of species found in the wider survey area and consisted of plants common on heavily disturbed ground. There were no signs of animal burrows or evidence of protected species, although a single field mouse was observed scurrying towards the hedge.

Table 1. Plant species identified on the proposed site (main field and grassy area around buildings and hedge)

Common Name	Latin Name and DAFOR
Ryegrass	<i>Lolium sp.</i> DOMINANT
Yorkshire fog	<i>Holcus lanatus</i> ABUNDANT
Pineapple weed	<i>Matricaria discoidea</i> ABUNDANT
Rosebay willowherb	<i>Chamaenerion Angustifolium</i> FREQUENT
Bent grass	<i>Agrostis sp.</i> FREQUENT
Cock's foot	<i>Dactylis glomerata</i> FREQUENT

Buttercup	<i>Ranunculus sp.</i> OCCASSIONAL
Broad leaved dock	<i>Rumex obtusifolius</i> OCCASSIONAL
Broad leaved plantain	<i>Plantago major</i> OCCASSIONAL
Common Chickweed	<i>Stellaria media</i> OCCASSIONAL
Cleavers	<i>Galium aparine</i> OCCASSIONAL
Common ivy	<i>Hedera helix</i> OCCASSIONAL
White clover	<i>Trifolium repens</i> OCCASSIONAL
Bramble	<i>Rubus fruticosus</i> OCCASSIONAL
Redshank	<i>Hedera helix</i> RARE
Greater celandine	<i>Chelidonium majus</i> RARE
Shepherd's purse	<i>Capsella bursa-pastoris</i> RARE
Scentless mayweed	<i>Tripleurospermum inodorum</i> RARE
Spear thistle	<i>Cirsium vulgare</i> RARE
Sorrel sp.	<i>Rumex acetosa</i> RARE
Smooth sow thistle	<i>Sonchus oleraceus</i> RARE
Herb Robert	<i>Geranium robertianum</i> RARE
Wood avens	<i>Geum urbanum</i> RARE
Dandelion	<i>Taraxacum officinale</i> RARE
Creeping thistle	<i>Cirsium arvense</i> RARE
Common nettle	<i>Urtica dioica</i> RARE

Table 2. Hedgerow species including undergrowth

Common Name	Latin Name and DAFOR
Hawthorn	<i>Crataegus monogyna</i> DOMINANT
Elder	<i>Sambucus nigra</i> FREQUENT
Dogrose	<i>Rosa canina</i> OCCASSIONAL
Ryegrass	<i>Lolium sp.</i> FREQUENT
Yorkshire fog	<i>Holcus lanatus</i> FREQUENT
Common nettle	<i>Urtica dioica</i> FREQUENT
Cleavers	<i>Galium aparine</i> FREQUENT
Cock's foot	<i>Dactylis glomerata</i> OCCASSIONAL
Broad leaved dock	<i>Rumex obtusifolius</i> OCCASSIONAL
Creeping thistle	<i>Cirsium arvense</i> RARE
Garlic mustard	<i>Alliaria petiolate</i> RARE
Bramble	<i>Rubus fruticosus</i> RARE
Cow parsley	<i>Anthriscus sylvestris</i> RARE
Shepherd's purse	<i>Capsella bursa-pastoris</i> RARE

Table 3. Bird species identified within the proposed development site during the survey.

Common Name	Latin Name
Blackbird (over head)	<i>Turdus merula</i>
Dunnock (in hedge)	<i>Prunella modularis</i>
Wood pigeon (over head)	<i>Columba palumbus</i>
Magpie (on gate adjacent cow track)	<i>Pica pica</i>
Great tit (in hedge)	<i>Parus major</i>
House sparrow (on silage clamp)	<i>Passer domesticus</i>

In summary the following habitats were identified on site:

- ❖ Hedgerow (non-important, species-poor) made up of predominantly Hawthorn with the occasional Elder and Dogrose. Limited species of ground flora undergrowth, no trees present and the hedge is regularly cut back and is around 2m high on average.
- ❖ Patches of bare ground
- ❖ Small areas of tall ruderal around the field edges, under the hedgerow and around the disturbed areas of agricultural buildings and along the concrete sleeper track.
- ❖ Species-poor semi-improved / improved grassland that is regularly grazed and/or mown.

4.3 Protected Species

4.3.1 Bats

The site was assessed for the suitability of habitats to support roosting bats. During the site visit it was noted that there are no mature or sapling trees on the proposed site and that the hedge was regularly cut and maintained at around 2m height maximum. The lack of trees and the modern design of the agricultural building and silage clamp provide no suitable features for roosting bats. It is likely however that bats use the site for foraging so consideration to sympathetic lighting should be made.

4.3.2 Badgers

Suitability of the site to support badgers was assessed during the visit. There are no signs of the presence of badgers (setts, foraging scrapes, latrines or tracks) on the proposed site or environment immediately surrounding the site (up to 50m) – although the farm regularly goes down with TB and badgers are known to be present in the wider area.

4.3.3 Nesting birds and the hedgerow

The hedgerow was assessed for species (table 2) with no species of ecological importance identified and predominantly hawthorn with a small amount of elder and dogrose making up the main body of the low-diversity hedgerow.

The site was assessed for the suitability to support nesting birds. The short length of hedgerow provides some nesting opportunities for birds such as dunnock and great tit which were both seen associating with the hedge during the site visit (nests were not directly observed due to the thick vegetation – however it should be assumed that birds were nesting).

Although the hedgerow provides some shelter and nesting opportunity there is little connectivity provided between areas of value such as other hedgerows and woodland.

As the hedgerow is more than 20m it was assessed to determine if it was classified as 'important' and therefore protected. The hedgerow marks the boundary between two agricultural parcels and is more than 30 years old (google earth time top). However, it does not meet any of the 'importance' criteria (assessed on ecological value alone).

4.3.4 Invasive species

No signs of invasive species were noted during the walkover survey.

4.3.5 Great Crested Newts and ponds

Although no ponds were identified within 250m of the survey site - two ponds were identified to the west of the proposed site (250m and 310m respectively). Both of these ponds were across the very busy A483 which was deemed a barrier for GCN dispersal given the reasonable distance from the site. Although the site offers some limited sub-optimal potential for terrestrial GCN foraging and shelter habitat, the wider environment offers preferable opportunity and no signs of GCN were observed on site during the survey.

Newts do tend to be present at lower density populations the further away from ponds; and as expected there is a correlation between this and reduced scale of impact as the distance from breeding ponds increases. The Great Crested Newt licence application method statement template issued by Natural England (based on solid scientific research) addresses this issue by providing further advice in relation to risk and provides a “rapid risk assessment tool” in order to ascertain the likelihood of encountering Great Crested Newts and whether a licence would likely be required. This guidance states that “even where there technically is an offence, such as the destruction of a small, distant area of resting place habitat, it is arguable that impacts beyond the core area often have little or no tangible impact on the viability of populations. Mitigation in such circumstances is of questionable value in conservation terms.” It is widely accepted that the key distances of impact lay within 50m to 100m of breeding ponds whereby GCN mitigation is almost always necessary, and capture and relocation of news is required. However, at distances over 100m careful consideration needs to be given as to whether this is the most effective option. Previously it was thought that breeding ponds within 500m should be considered relevant, however more recent research and guidance suggests that in reality this distance is much lower.

The rapid risk assessment tool (table 4) applies the assumption that GCN are present in the ponds near the site. It requires a calculation for the area of land (of potential suitable GCN habitat that will be lost or damaged by the development. Completion of the rapid risk assessment for this development concluded that the works would not likely require formal licensing given the very small area of habitat which would be affected. The entire site falls within 100m from the nearest pond, however a portion of the site is hardstanding and is adjacent a livestock shed which offers no significant habitat for GCN. The site will have low value habitat potential for GCN and is estimated that less than 0.1ha of suitable GCN habitat will be lost by the development The rapid risk assessment indicates that even if GCN were present in the ponds concerned – that the likelihood of committing an offence and negatively impacting GCN is highly unlikely.

Table 4. Rapid risk assessment tool for GCN

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001
Individual great crested newts	No effect	0
Maximum:		0.001
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

4.3.6 Reptiles

There were no signs of the presence of reptiles on the proposed site. Any lying debris such as the occasional section of roofing sheet was carefully lifted to check beneath and no signs of reptiles were noted on site. Due to the lack of suitable habitat it was not deemed suitable to conduct a population survey for reptiles.

In summary the site supports some limited habitat that may be suitable for great crested newts, badgers and reptiles – however no evidence was found during the site visit of these protected species and it is deemed highly unlikely that the site will support these species. Birds were seen flying in and out of the mature well-maintained, species poor hedgerow and as such it is assumed that the hedge supports nesting birds.

5.0 Discussion

5.1 Ecological Impact

5.1.1 Habitats

The proposed works includes the clearance of the site and removal of around 35m of hedgerow from its current location (however this is planned to be translocated and extended – see figure 9). The majority of the tall ruderal habitat to the east of the hedge and on the earth mound will be lost initially but exists in heavily disturbed ground currently due to the nature of the current use (temporary storage and frequent disturbance). The tall ruderals and areas of bare ground are unlikely to support any protected species but do provide some limited ecological value and should be allowed to regenerate naturally post-development along hedgerow and new field margin.

5.1.2 Bats

Although there were no opportunities for bats to roost, it is likely that bats use the site to forage and as such it is a recommendation that consideration is given to bat sensitive lighting during the construction phase and final outcome of the development (guidance taken from the Bat Conservation Trust document ‘Bats and Artificial Lighting in the UK’). Exterior lighting to be fit with hoods and be fixed less than 3m above the ground to direct light immediately down and will not be directed at any hedges or gables or eaves. This is to maintain dark for nocturnal animals including bats.

5.1.3 Badger

There is no evidence from the site visit that badgers are active on the site, however they are known to be active in the area. The proposed development will have no direct impact on local badger setts/ individuals that may cross the site.

5.1.4 Nesting birds

The hedge has nesting potential for birds during breeding season and is of ecological importance to support nesting birds (all nesting birds are afforded protection). Birds (including Dunnock and Great Tit) were observed associating with the hedge during the site visit and are assumed to nest here. It is a requirement that hedgerow clearance should not take place during the bird nesting season (March to August inclusive). If breeding birds are found out of season during the development - then works should cease and a 5m exclusion zone be followed and maintained until breeding has been completed and the fledglings have left the nest. See below for recommendations regarding hedgerow translocation and extension.

5.1.5 Great Crested Newts

There is no evidence from the site visit that great crested newts are active on the site – however there may be some limited habitat potential for these animals. Using the rapid risk assessment tool it is predicted committing an offence would be highly unlikely and no direct impact on local GCN populations is anticipated with nearest ponds over 250m away and across a major road barrier. A number of reasonable avoidance measures will be implemented to reduce the likelihood of injuring or killing small animals including GCN and other amphibians, reptiles and small mammals such as hedgehogs (see section 8, 'Reasonable Avoidance Measures').

In summary - other than the hedge it is deemed that proposals will have limited detrimental affect on the site which otherwise has little ecological value. Despite this there will still be a net loss of habitat and therefore the following measures (set out in the enhancement plan) are recommended to enhance post development biodiversity on site with the goal of enhancing biodiversity potential. Taking into consideration these actions – it is expected that there are no long-term detrimental effects on biodiversity and that the proposed development enhances biodiversity opportunity on the resulting site.

6.0 Ecological Enhancement / Net Biodiversity Benefit

The proposed works In accordance with the Planning Policy (Wales) all developments are required to demonstrate that provision has been made for net biodiversity benefit (NBB). This means that the site should have a better outcome than if it had been left undeveloped to ensure that there is no net loss to biodiversity. This plan aims to propose wildlife features which will be incorporated into the proposed development to result in overall increased site biodiversity and provide valuable habitat within the development.

6.1 Hedgerow

The main habitat loss from the proposed development is the loss of 35m of hedgerow, which is valuable nesting habitat for birds. The removal of the hedge is unavoidable to allow for the extension of the current silage clamp and agricultural building infrastructure. However, it is proposed that the hedgerow be translocated and extended (see section 9) rather than just removed. The translocated hedge will have additional new hedgerow whips planted to fill in any gaps and to extend the hedgerow around the new shed – resulting in a new hedgerow that is around 2 and half times longer than the original and an increase in nesting opportunities for passerine birds (see Method Statement for Translocation of Hedgerow below). The area between the new hedge and buildings (see figure 9) will be left to naturally regenerate with tall ruderals and provide a mosaic of habitat for foraging small mammals and other animals using the field margins.

6.2 Bird Boxes

It is also recommended that the new farm building offers enhanced nesting opportunities for birds including swallows and house sparrows. Farm buildings can provide valuable nesting habitat for birds and enhancing the new structure to improve nesting and habitat opportunities will contribute to improvements for a variety of wildlife using the landscape. It is proposed that 2 swallow cups (e.g. Nestbox company Eco Swallow Nest or similar) should be fitted to the external wooden Yorkshire boarding at a minimum of 4m on the north side of the new shed, during construction phase and

with at least 6cm clear space above (see recommended locations in figure 7 which avoid facing east and south and potential overheating inside the box on hot sunny days). Swallow cups are to provide secure nesting opportunities for swallows without the need for birds to construct their own relying on mud. Cups are moulded from resin/concrete/ terracotta and should have a drainage hole.



Figure 5. Eco Nestbox Swallow Cup

1 three-hole house sparrow terrace nesting box (such as the FSC Sparrow Terrace from Nestbox) will be fit to the external east side of the new shed on the closed section of the shed (see figure 7) – beneath the eaves of the new building at a height of around 4m. This location is ideal as the resulting site will mean this side of the shed is somewhat sheltered from and away from the main well-used livestock and machinery track.



Figure 6. 3-hole house sparrow terrace bird boxes

6.3 Individual trees

It is proposed that a number of standard hedgerow trees be planted along the transplanted hedge (3 total at irregular spacing as shown in figure 9). Hedgerow trees will provide shelter and food as well as enhanced nesting sites and breeding habitat. These trees are to be planted into hedgerow gaps of the transplanted hedge. Each tree should be planted deep enough to contain the full root system and should be a native species characteristic of the locality. In this instance species could include Oak, Beech, Hornbeam, Rowan, Alder or Chestnut etc and should be at least 2m tall. Each of these trees should be tagged with a bright coloured marker and staked and tied securely to withstand wind damage. These trees will be fenced off along with the hedgerow to prevent damage to the newly planted trees by livestock and machinery etc.

6.4 Loss

It is estimated that the proposed development will result in the loss of approximately:

- ❖ 200m² of species poor semi-improved grassland/areas of exposed bare ground,
- ❖ 35m of hedge (non-important) and
- ❖ 25m² of tall ruderals.

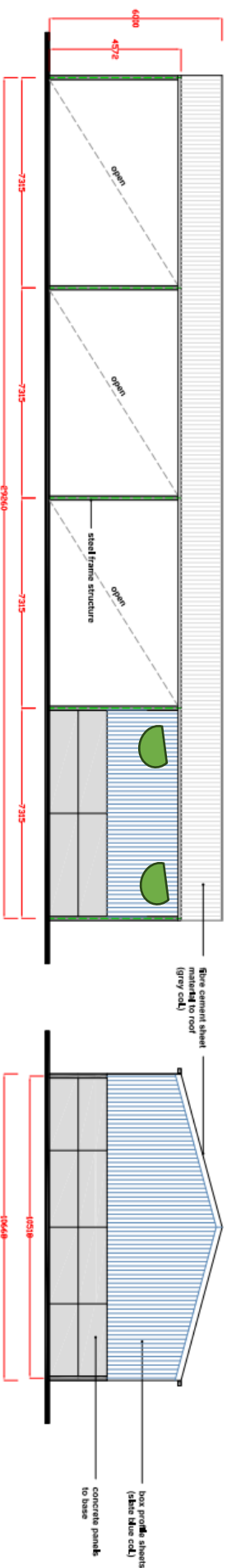
The main adverse short-term impact will be on bird nesting opportunities within the hedge.

6.5 NBB

The proposed development will include:

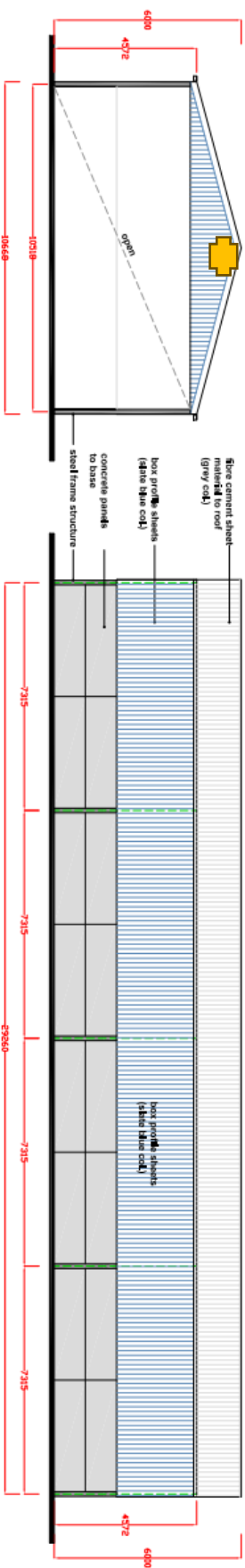
- ❖ 85m of hedge from the origin point of the existing hedge (translocation and extension of original hedge – see figure 9).
- ❖ Planting 3 trees (native species) within the hedgerow
- ❖ Installation of 1 terrace nest boxes for house sparrow
- ❖ Installation of 2 swallow cups
- ❖ Natural regeneration of tall ruderals and undergrowth around hedgerow and between agricultural buildings

The proposed works will take place between October and March (and outside of bird nesting season).



ELEVATION A (front / north)

ELEVATION B (side / west)



ELEVATION C (side / east)

ELEVATION D (rear / south)

Figure 7. Proposed bird cup/box locations for swallows (green) and house sparrow (yellow)

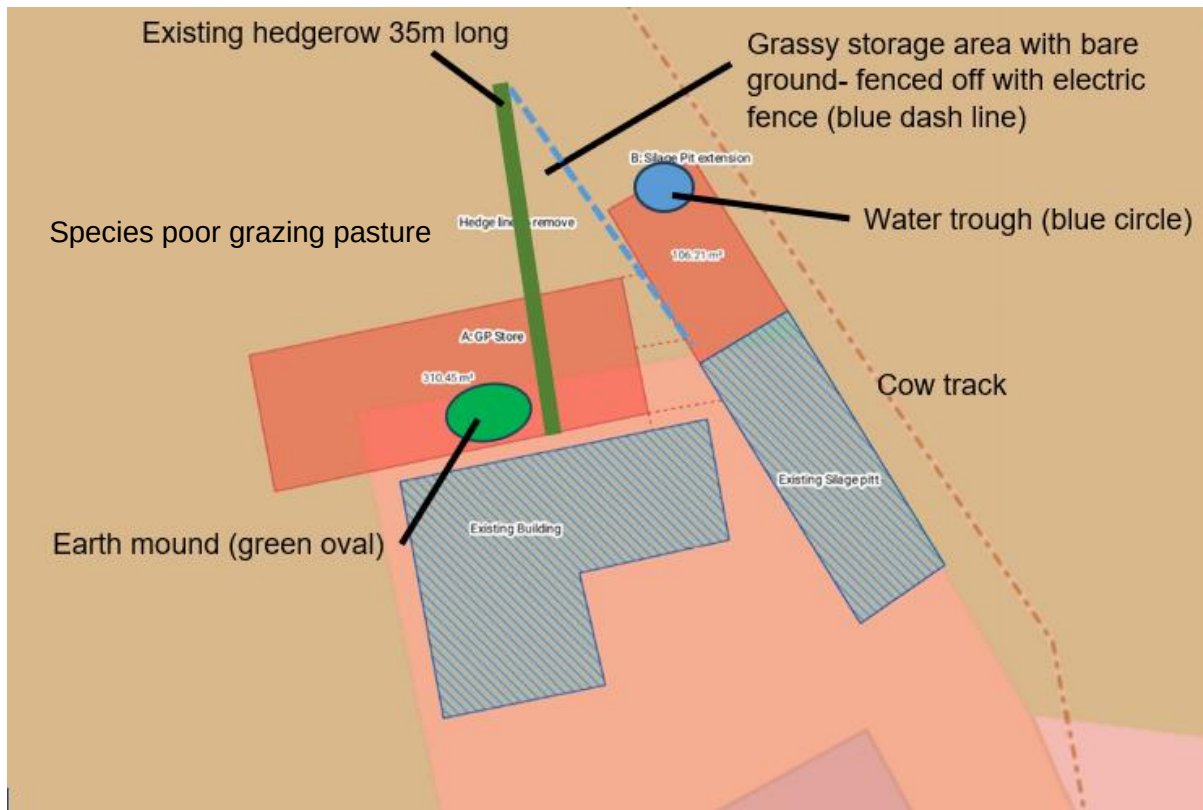


Figure 8. Existing site layout (ignore proposed development in transparent red).

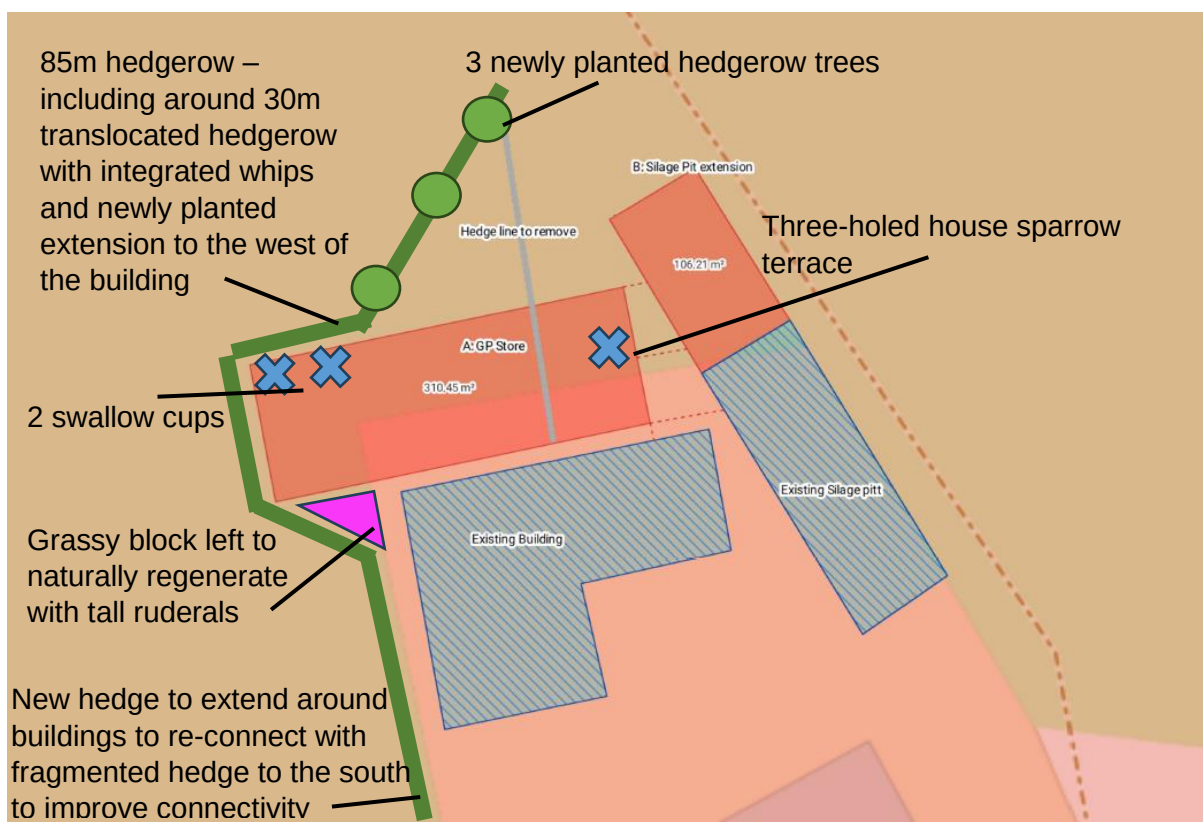


Figure 9– Post-development layout

6.0 Green Infrastructure Statement

In accordance with Planning Policy Wales (Chapter 6), all applications are now required to provide a statement in relation to Green Infrastructure (paragraph 6.2.12) to ensure that the proposed development will not negatively impact the wider green infrastructure. This is to be achieved and demonstrated using the step-wise approach as outlined in the PPW. For minor developments such as this proposal – this statement need only be a brief description.

The development at Pen-Y-Parc Farm, Halton is for a silage clamp extension and a new agricultural building on an area of existing bare ground and low-value species poor grassland with the translocation of around 35m of hedgerow. The grassland and bare ground / tall ruderals were identified as low ecological value with only commonly found species representative of the wider environment. A low-diversity well-trimmed hedgerow, around 35m, runs to the centre of the existing agricultural building and offers little in the way of habitat connectivity as the hedge ends against a modern agricultural building and adjacent the yard and silage clamp.

The Planning Policy Wales Step-Wise Approach

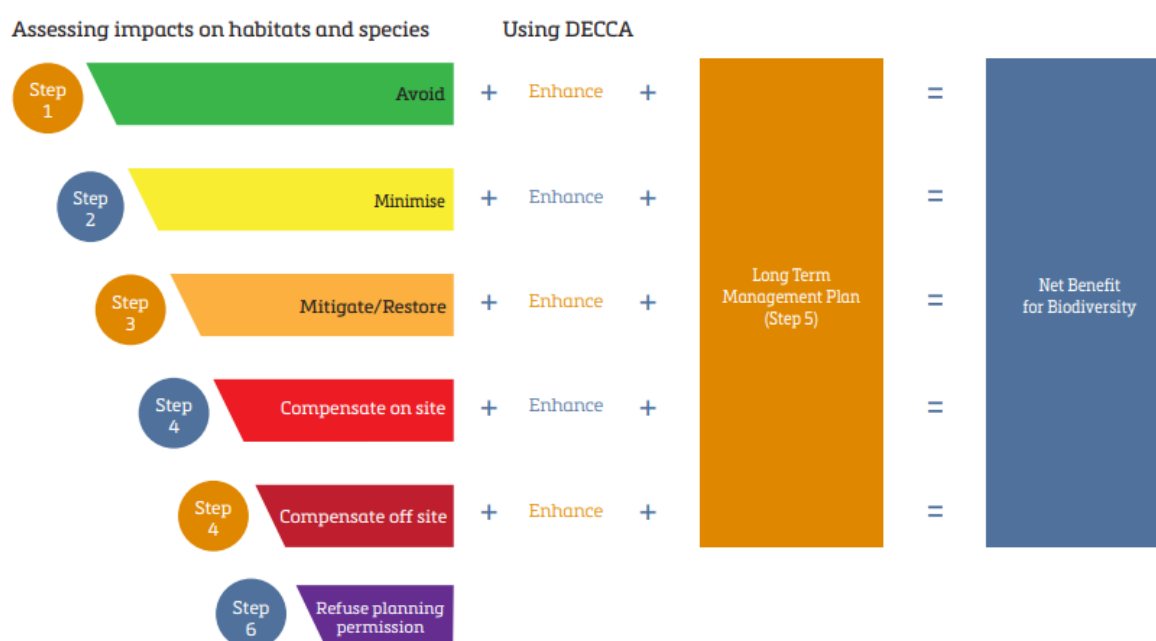


Figure 10. Summary of the Step-wise approach taken from Planning Policy Wales (6.4.21)

Step 1

The priority is to avoid any damage to biodiversity – variety of species/habitats and maintenance of ecosystem functionality. The layout and nature of the proposals mean that the original hedgerow cannot remain in the current location due to accessibility to the new agricultural building and existing farm infrastructure. Furthermore - Section 8 outlines the practical reasonable avoidance measures that will be taken during the development on site.

Step 2

The next step is to minimise the impact. The proposed building is set within a low-diversity species-poor grass field and the silage clamp extension is on an area of disturbed ground with large areas of bare ground, adjacent to an existing heavily trafficked concrete sleeper track. A length of hedge runs through the middle of the proposed site and will have to be moved prior to works commencing. The original hedge is not being removed completely and is being translocated a short distance away to sweep the western perimeter of the new building (see figure 9). This hedgerow (originally 35m) will also be extended to a new enhanced length of around 85m and include a small proportionate number of standard hedgerow trees in the first 30m to the west of the original hedge. Connectivity will improve with the new layout as the proposed hedgerow extends and re-connects with the existing fragmented hedge to the south of the existing buildings. The composition and characteristics of the existing hedgerow will be retained. The impacts have been considered and minimised through the planned efforts described.

Step 3

The third step is to mitigate and restore habitats that are unavoidably lost. As described around 35m of hedgerow will require translocation. There will be a short-term temporary impact on the ecological value of the hedgerow whilst the translocated hedgerow re-grows and thickens up during the first few years of translocation.

Step 4

To ensure on-site compensation the translocated hedge will be gapped up with new whips of native species, 3 standard hedgerow trees will be planted to enhance biodiversity and the resulting hedge will be around 40% longer than the original hedgerow with additional hedgerow planting to the west of the new shed. Newly planted trees will take some time to settle and establish but long term will provide enhanced opportunities for shelter, foraging and nesting.

In addition to this - 2 swallow cups will be installed on the new agricultural building along with a three-hole house sparrow box on the eastern elevation. The resulting biodiversity value of the site will be higher than the original with additional opportunities for nesting birds and a longer length of hedgerow for birds and other wildlife and trees where there were none prior.

Step 5

No off-site compensation is deemed necessary due to the size and small scale of development, along with reasonable on-site compensation.

Step 6

The step-wise approach is clearly being followed for the development proposals.

8.0 Reasonable avoidance measures

This section outlines the Reasonable Avoidance Measures that will be followed prior to works and throughout the construction period for this small development in order to decrease the likelihood of killing/injuring small, protected animals such as amphibians, reptiles and hedgehogs. It is advised that a copy of these measures is always kept on site to ensure that all points are adhered to.

1. At least one week prior to the start of works any vegetation that is to be removed should be sprayed off, trimmed and cut down short to remove cover and maintain a sub-optimal habitat for wildlife.
2. All construction materials are to be stored on bare soil, tarmac or very short grass, or on raised platforms/pallets to prevent their use as hibernacula. Loose materials, if possible, should be stored on pallets or similar, so that they are off the ground and cannot be accessed by wildlife.
3. Throughout the development – steps should be taken to discourage wildlife from using the development site. I.e. the creation of mounds of earth, rubble etc should be avoided as this could form temporary artificial hibernacula. Any rubble or waste materials should be removed instantly to skips or suitable areas away from the development site. If the development is delayed for any reason over winter months, it is essential that no piles of materials are left on site.
4. Works to take place during daylight hours.
5. If any excavations are required, an escape ramp (of no more than 45 degrees in angle) must be provided for animals – especially if they are left open overnight. Holes must be securely covered to prevent wildlife from entering and checked regularly. All excavations and holes left overnight must be checked for animals prior to works continuing but ideally excavations will be back filled immediately as an ongoing process, so as not to leave suitable resting places for wildlife.
6. **In the unlikely event that a protected species is found during works – work must cease immediately until further notice, an ecologist be contacted immediately and the council's Ecologist should be contacted to seek advice to ensure that works proceed legally.**

9.0 Method Statement for Hedgerow Translocation

This method statement outlines the measures that will be taken to translocate a 35m length of hedgerow from the original location and move it out towards the new parcel boundary as shown in figure 9). This will create a new boundary to the grazing pasture and a hedge line up to and around the new building without having to remove the hedge completely. This can often be more cost effective and will ensure the new location establishes the same overall characteristics and visual impact as the original hedgerow.

9.1 Timing

Successful translocation is subject to factors such as root spread, depth, equipment and timing with the most successful translocations occurring between October and March when hedgerows are dormant, ground conditions are slightly damp and outside of bird nesting season. The results of the preliminary ecological appraisal deemed it unlikely that the site was used by other protected species such as GCN – but a suitably qualified ecologist should be present on site to conduct a walkover of the site to check for protected species immediately prior to works commencing.

9.2 Receptor Trench Preparation

The receptor trench should first be marked out and dug ready along the new boundary with excavated soil placed along the length of the trench so it can be efficiently backfilled. Translocation should be carried out immediately so that the trench neither floods nor dries out – depending on the weather small lengths of trench may be required at a time. Exposed hedgerow roots should be exposed for as little time as feasibly possible (sub 1 hour) and must not dry out. The receptor trench should be around 1.2m wide and around 1m deep but may require an increased depth to accommodate longer sections of roots. It is advised that the trench is treated with slow release fertiliser granules (following specific product recommendations).

9.3 Hedge translocation

Before the hedge is moved it should be coppiced back to reduce the overall size (ideally to around 50cm in height and taking the sides back to the main upright woody growth) – making it easier to move and improving chances of successful growth the following year. This should be completed outside of bird nesting season (see timings). This should be done using a chainsaw (suitable qualified person/safe working practice) cutting stems at an angle between 30 and 45 degrees. All trimmings should be removed from the site. Sections of hedgerow should be moved using a suitable excavator – likely a tracked machine with suitable reach as to minimise the ground disturbance. Due to the short distance between existing and receptor sites – the soil conditions should be similar and disturbance to the wider landscape should be minimised. The chainsaw operative should be on site to cut stubborn root stems rather than being snapped off when pulled up by the excavator and plants should be moved the short distance in the excavator bucket. Topsoil from the trench will be used around the translocated hedge section ensuring that any exposed roots are buried. Once the hedgerow has been translocated in its entirety it should be heavily watered to ensure all topsoil is washed in filling gaps. Topsoil should thereafter be topped up if roots become exposed.

New hedgerow planting of whips should be incorporated into the newly translocated hedge – using native species such as hawthorn (70%), dogrose (15%) and other species such as Elder, Hazel, Oak or Blackthorn (15%). These whips should be 2 year old bare-root transplants at least 500mm high, planted in a double staggered row spaced 40cm apart with a recommended 6 plants per metre and protected using spiral guards and supporting cane. As the new hedge extends beyond the length of the original – further new hedge planting will be required around the side of the new building (see figure 9). Any failures should be replaced the following season.

9.4 After-care

The newly translocated hedgerow will need ongoing monitoring. If dry weather persists after translocation, then the hedgerow should be watered regularly until it rains. Suitable fencing (sheep netting, or electric) should be placed alongside the western

boundary of the hedgerow to protect it from grazing cattle at a distance of 1.5m to 2m from the centre of the hedge. The ground flora around the hedge margins should be left to naturally regenerate and will echo existing field margin flora – however weeds such as nettles, brambles and grasses should be spot-controlled during the first season to reduce competition for moisture, nutrients and light. Any failures of newly planted whips should be replaced the following season and if any sections of the hedge fail to re-establish then these should be replaced with whips. The translocated hedge should be trimmed in year 2 to encourage further bushy growth for height and breadth. Once established fully – the hedgerows should be cut back on a 2- or 3-year rotation with a tall hedge that is wider at the base.

11.0 References

ARG UK (2010). ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. Amphibian and Reptile Groups of the United Kingdom

Bat Conservation Trust (2018) Bats and artificial lighting in the UK. Bats and the Built Environment series, Guidance Note 08/18. Institution of Lighting Professionals.

Collins, J. (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London

English Nature, **2001** Great Crested Newt Mitigation Guidelines. English Nature, Peterborough.

JNCC's Phase 1 Habitat Survey Handbook (JNCC, 2010)

Natural England, **2019** Template for Method Statement in respect of great crested newts *Triturus cristatus*. Form WML-A14-2 (Version March 2019)

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M., **2000** Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10 (4), 143-155.