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Management of GCN Habitat

for Almar Construction

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1.0 Summary

1.1 Solum Environmental Ltd was appointed by James Bennett of Greenspace architects ltd on behalf of Almar Construction to provide a management plan to address the '*long-term management and responsibility for the newt mitigation area'* within the application site, in satisfaction of condition 9 of the outline permission (MAE P/2014/0738) for residential development of 7 No. detached dwellings on Land off Tudor Drive, Penley, Wales LL13 0JN.

1.2 The proposed development site comprises approximately 0.3 ha, of which approximately 200 m^2 is to be enhanced and managed specifically for the benefit of Great Crested Newt *Triturus cristatus*, to ensure maintenance of suitable habitat for Great Crested Newt (GCN) which is known to occur in the wider area.

1.3 The site is bounded by Tudor Drive with a small housing estate beyond to the south, by woodland to the west, open fields to the north and a detached house and gardens, to the east.

1.4 The primary objectives of this Ecological Management Plan are to set out:

- the programme and means by which terrestrial and aquatic habitats suitable to support GCN will be provided and maintained
- the mechanism by which the site is to be managed in the short- and long-term

2.0 Introduction

2.1 Background and Commission

2.1.1 Solum Environmental Ltd was initially appointed in February 2015 by Greenspace Architects Ltd to produce an Ecological Management Plan (EMP) for the proposed development site off Tudor Drive, Penley, Wales LL13 0JN.

2.1.2 Subsequently, Solum Environmental Ltd was appointed by Greenspace Architects ltd on behalf of Almar Construction to provide a management plan to address the '*long-term management and responsibility for the newt mitigation area'* within the application site, in satisfaction of condition 9 of the outline permission (MAE P/2014/0738) for residential development of 7 No. detached dwellings on Land off Tudor Drive, Penley, Wales LL13 0JN.

2.1.3 The site is bounded by Tudor Drive with a small housing estate beyond to the south, by woodland to the west, open fields to the north and a detached house and gardens, to the east.

2.1.4 The primary objectives of this Ecological Management Plan are to set out:

- the programme and means by which terrestrial and aquatic habitats suitable to support Great Crested Newt *Triturus cristatus* (GCN) will be provided and maintained
- the mechanism by which the site is to be managed in the long-term

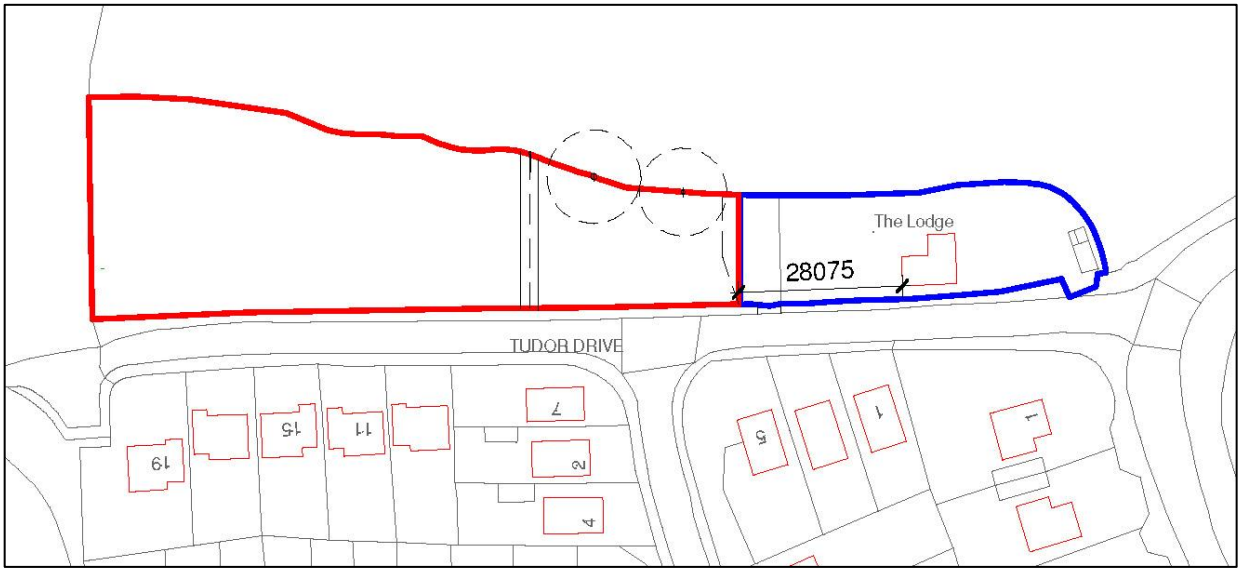
2.2 Site Location and Description

2.2.1 The proposed development site comprises a grazed field approximately 0.3 ha off Tudor Drive, Penley, Wales (Plan 1, red line boundary). The site is delineated by tall, native-species hedgerows to all sides. A small estate road, Tudor Drive runs east-west immediately to the south, with a small housing estate beyond; a broad-leaved woodland (approximately 0.6 ha) lies immediately to the west and south-west of the site, open, grazed fields, lie to the norths; and, a small cottage, 'The Lodge' and gardens lie to the east (*Plan 1 and 2*)

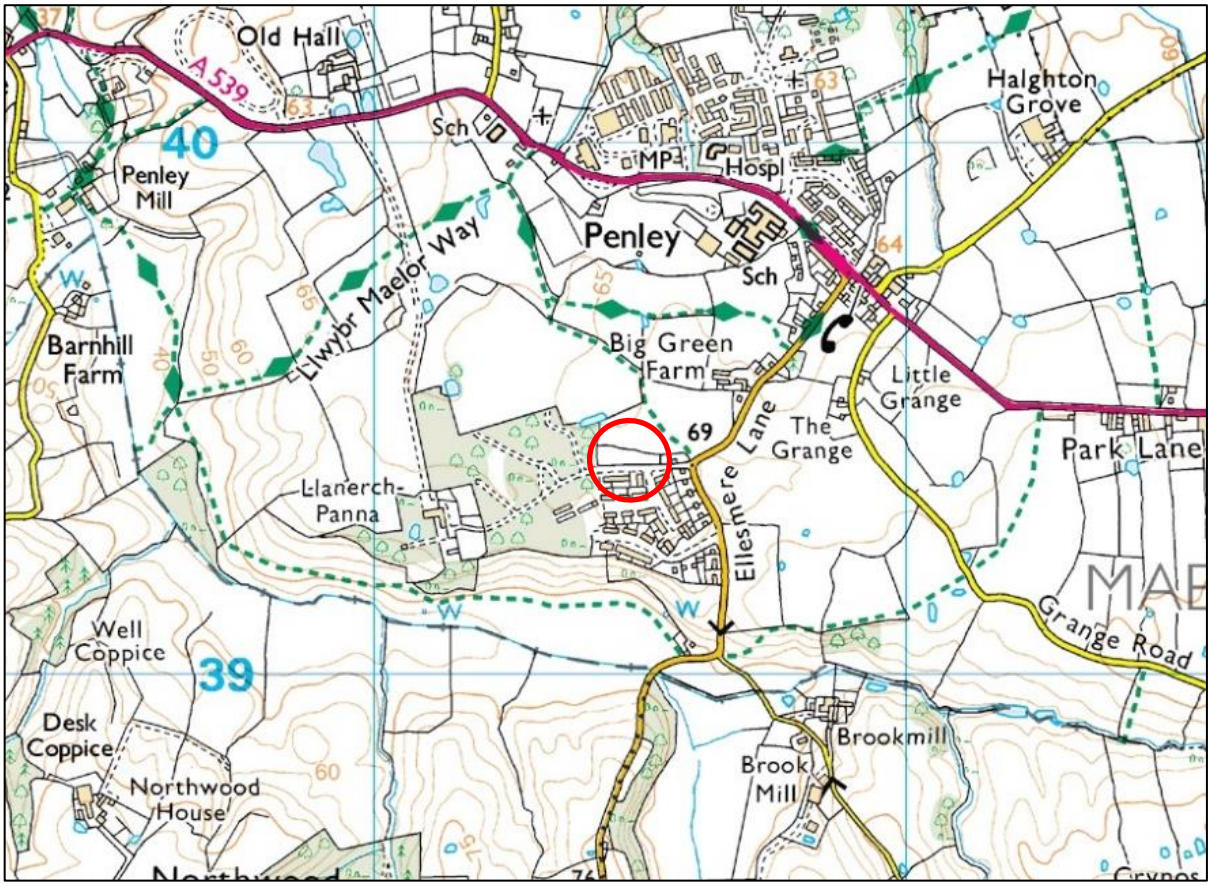
2.2.2 There are a small number of mature trees within the hedgerow along the north of the site and there are several ponds in the wider, relatively flat, rural landscape surrounding the site and housing estate. The nearest of these ponds is approximately 90 m to the north-west, set on the northern boundary of the woodland.

2.2.3 The proposed Wildlife Management Area (*Plan 3*) comprises a small portion (approximately 200 m^2) of the existing field, to the south-western corner of the application site. This area is to be managed primarily for the benefit of GCN, but will benefit other wildlife and enhance the site biodiversity generally.

Plan 1: Proposed Development Site Boundary (not to scale)



Plan 2 : Site Location (red circle) and Landscape Context



2.2.4 The proposed development and mitigation area is shown in Plan 3 below.

Plan 3: Development Proposals, Including GCN Mitigation Area

3.0 Legislation

3.1 GCN is protected under the Conservation of Habitats and Species Regulations 2010 (as amended), known as the 'Habitats Regulations'. Under these regulations, it is an offence to:

- Deliberately capture, injure or kill any wild animal of an EPS
- Deliberately disturb wild animals of any such species
- Deliberately take or destroy the eggs of such an animal
- Damage or destroy a breeding site or resting place of such an animal

3.2 Disturbance is defined as that which is likely to:

1. impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
2. affect significantly the local distribution or abundance of the species to which they belong.

3.3 Defra and the Welsh Government are to publish a joint guidance document on the interpretation of the offences relating to disturbance, and to damage and destruction of breeding sites and resting places.

3.4 There are other offences relating to possession, transport and sale.

3.5 Under the Wildlife and Countryside Act 1981(as amended) (W&CA) it is illegal to:

- Intentionally or recklessly disturb any GCN while it is occupying a structure or place which it uses for shelter or protection, 9(4)(b)
- Intentionally or recklessly obstruct access to any structure or place used by GCN for shelter or protection, 9(4)(c)
- Sell, offer or expose for sale any GCN, 9(5)

3.6 It is, however, legal to tend a disabled GCN with the intention of releasing it, or to kill a GCN that cannot recover, so long as the injury was not a result of your unlawful act (Habitat Regulations 42 (1)(2); W&CA 10(3)(a)(b).

3.7 Natural Resources Wales (NRW) issues licences under Regulation 53 of the Habitats Regulations to allow work within the law in Wales. A licence may be required, for example, to undertake pond management, scrub clearance or a development. However, through the careful timing and scope of work, it may be possible to avoid the need for licensing.

4.0 Objectives and Management Specifications

4.1 An area of land has been set aside under a condition of planning to provide mitigation for the loss of habitat resulting from the residential development of this site. The Wildlife Area is contiguous with the hedgerow and small woodland immediately to the west of the site; the proposed pond would represent an additional potential breeding site for amphibians in an already favourable landscape.

4.2 The primary objectives of this Ecological Management Plan are to manage the proposed habitat (pond, hibernacula, rough grass etc, to help assure the provision and maintenance of suitable GCN habitats in this area. To this end, the following are provided:

- the programme and means by which terrestrial and aquatic habitats suitable to support Great Crested Newt *Triturus cristatus* (GCN) will be provided and maintained
- the mechanism by which the site is to be managed in the long-term

4.3 Timing of Management Work

4.3.1 Pond and hibernacula construction and planting of the adjacent habitat will take place within the same time frame as the residential development; the pond vegetation will include floating and emergent, native species (of local provenance, where possible) with wetland and native grassland species surrounding the pond.

4.3.2 Pond management work should normally be carried out in late autumn through winter, typically, from 1st November to 31st January, when amphibians are unlikely to be present in ponds. These dates are for guidance only as amphibian activity will be modified by the prevailing weather. In some ponds newts may have left the pond earlier whereas in certain ponds GCN can overwinter in low numbers. In some cases, it may be essential to do the work in the summer months because of ground conditions; however, this will require careful consideration of the impacts on GCNs and, if found to be present, a conservation licence may be required.

4.3.3 It is also important to consider whether the proposed pond management work will impact upon surrounding terrestrial GCN habitat. Large machinery can damage habitat and hibernacula if not carefully planned and the silt removed from ponds must not be deposited on areas used by GCNs.

4.3.4 Any disturbance of existing hedgerows (trees, hedgerow, grassland, where the grass is allowed to grow tall) should be timed to avoid the bird nesting season (principally, March to September, inclusive).

5.0 Proposed Habitats

5.1 The proposed '*newt mitigation'* area (Plan 5, below) illustrates the range of native habitats to be maintained – from open water to floristically diverse, invertebrate-rich grassland. The hedgerow and woodland immediately to the west provide habitat and connectivity to the wider landscape.

5.2 Refugia/hibernacula are proposed to be set within the tall grass and hedgerow surrounding the pond.

5.3 Details of the planting, with appropriate native species (of local provenance, where possible), will be agreed with the Local Authority Ecologist.

5.4 The front facing boundary hedgerow will not be altered in terms of species composition, and will be maintained in its current state. The other hedgerows will be planted with additional, appropriate native species. All hedgerows will be appropriately managed to ensure they do not over-shade the pond, particularly on the southern margin.

5.5. It is hoped that additional pond and wetlands will attract invertebrates and a wider range of wildlife to this location.

5.6 Locating a pond adjacent to housing represents a potential risk to young children and pets. It would be important, therefore, to provide appropriate fencing and gated access to prevent the casual access of children, while allowing clear views into the pond to allow visual monitoring in the eventuality that a child enters this area.

Plan 5: Proposed Wildlife Habitat

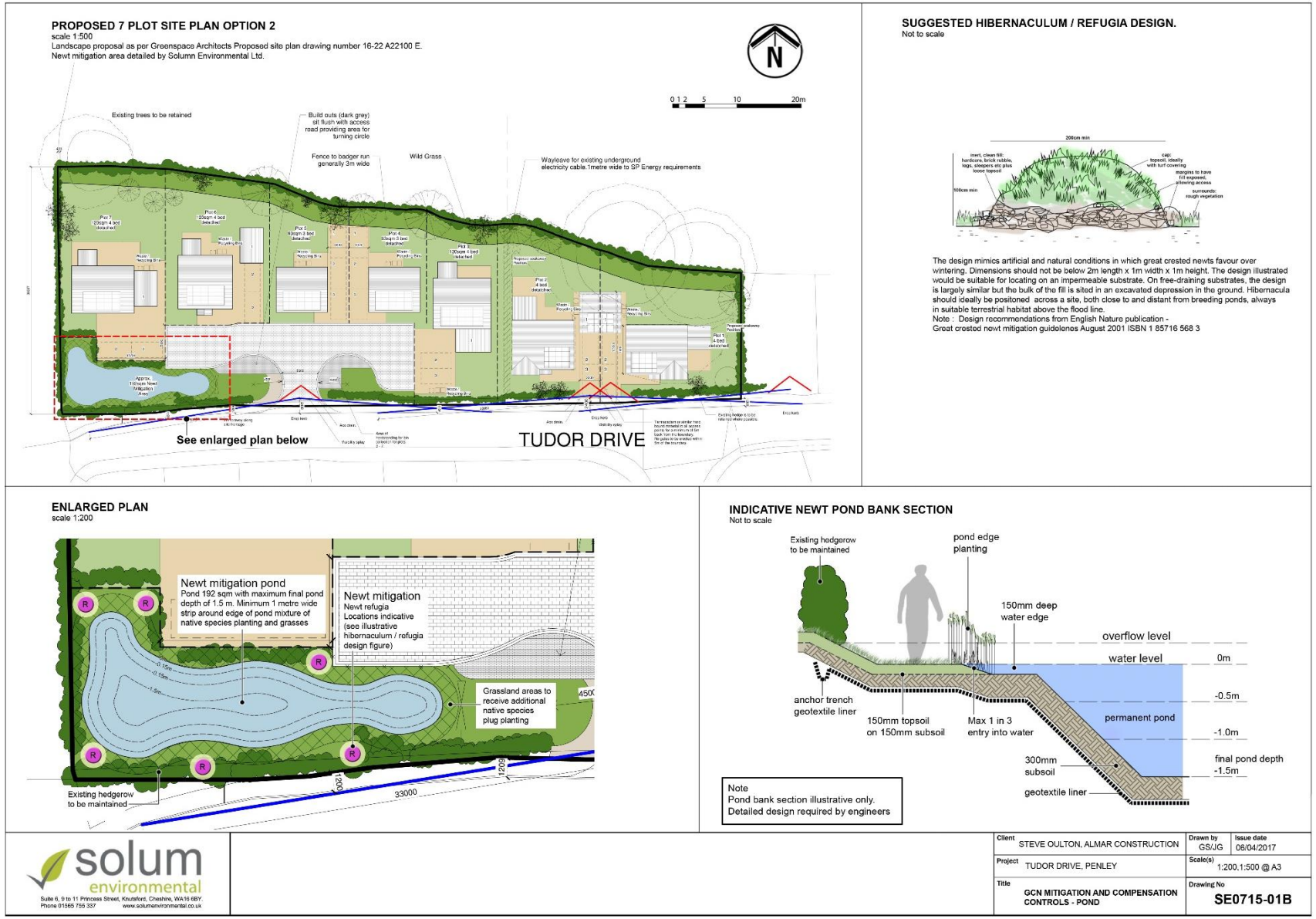


Table 2: Summary of Proposed Habitats and Potential Value to Protected Species

	Proposed Habitat Type on Site	Proposed Ecological Value	Mechanism for Enhancement
1	Existing deadwood	Medium: Breeding birds – foraging and nesting Medium/high : feeding and breeding of invertebrates; growth and reproduction of fungi.	• Manage deadwood (standing and habitat piles) for the benefit of invertebrates, birds, bats and amphibians
2	Tall grasses and forbs (adjacent to hedgerow)	Medium : Breeding birds – foraging Medium: Breeding birds - nesting Medium : Bats – foraging Medium : Small mammals – foraging	• Create by introduction of additional native species • Manage by occasional strimming • Create compost piles within the site (not adjacent to the pond)
3	New and existing native hedgerow and scattered trees	Medium : Breeding birds – foraging High : Breeding birds - nesting Medium : Bats – foraging High : Bats – commuting	• Manage by annual inspection and replacement planting where necessary. • Retain existing front facing boundary hedgerow, enhance other hedgerows with additional native species where appropriate. • Allow element of dead timber to remain • Prevent excessive over-shadowing of pond by cutting back, particularly along the southern margin of pond.
4	Riparian and emergent habitat	Medium : Breeding birds - nesting Medium: Birds – feeding (eg. Kingfisher) Medium: Bats – foraging Medium : Small mammals – foraging High: amphibian foraging and egg laying	• Create with native planting. • Remove any invasive, non-native species (e.g., Himalayan balsam).
5	Marsh/marshy grassland	High : Invertebrates High : Breeding birds – foraging High : Bats – foraging Medium : Amphibians	• Create and enhance with appropriate native species
6	Open water	High: GCNs	• Maintain open water suitable for GCN display
7	Wildflower grassland	High : Invertebrates High : Breeding birds – foraging High : Bats – foraging Medium : Small mammals – foraging Medium: Amphibians	• Creation/enhancement of new wildflower grassland to include insect-attract species • Manage with annual or biannual cut

	Proposed Habitat Type on Site	Proposed Ecological Value	Mechanism for Enhancement
8	Nesting and roosting sites	High : bat and birds, roosting and nesting.	• Install bird and bat boxes, under direction of qualified ecologist, throughout the wildlife area.

6.0 Implementation

6.1 Careful consideration will be needed in the selection of native species planting. Where material is sourced from non-commercial suppliers, care will be needed to avoid introducing non-native, invasive species. There are several commercial suppliers of wildflower mixes and the appropriate mix should be chosen following consideration of the ground conditions, geographic location and availability of material. Additional species can be added in subsequent seasons by over-sowing or the use of plug-planting.

6.2 Where possible, on-site materials soils are to be utilised. However, landscape tree planting may require enhancement with fertilisers/organic soil improvers. In this instance, care will need to be taken to ensure there is no leakage of nitrates and other fertilisers into the waterbody on site which would result in eutrophication.

6.3 Other than the foraging of badgers and the proximity of known GCN populations, there is little evidence for the use of this site by any other protected species. However, the following should be considered throughout the re-development process:

- Implementation of the RAMs (Solum Environmental February 2015) to avoid potential disturbance/harm to GCN.
- Maintaining and creating corridors along the site boundary and through the site to allow wildlife, including GCNs, to commute and feed.
- Avoiding removal of trees and shrubs during the bird breeding season (March to September, inclusive).
- Treating invasive species, such as ragwort or Himalayan balsam (see Appendix).

6.4 The proposed Management Schedule is set out in Chapter 8 below.

6.5 It is advised that the pond is surveyed by a suitably licensed ecologist in advance of the survey work commencing and where GCNs are found to modify or reschedule the work where necessary or otherwise advise where a derogation licence is required.

6.6 A Management Company is to be set up to be responsible for the management of the '*newt mitigation area'* over a minimum period of 20 years.

6.7 The pond will be monitored for the presence/absence/numbers of GCNs and the data submitted to Cofnod/ARC online annually. Where no GCNs are recorded in the first 10 years following establishment, consideration should be given to a transfer of funding to an alternative site (possibly via Building Wildlife or similar), following agreement with the Local Authority Ecologist and Natural Resources Wales, one which is more likely to be effective in the support of a GCN population.

7.0 Monitoring and Evaluation

7.1 In development schemes where the wildlife interest is more significant, or where there are protected species on sites, it has become best practice to employ an Ecological Clerk of Works (ECoW). In the current circumstances because of the generally low value of the site, this should not be necessary, but a suitably qualified ecologist should be available to assist with the monitoring and enhancement in the specification and timing of the implementation of the proposed works. The ecologist should have expertise in the survey (including licensing) and management of habitats for herpetofauna.

7.2 Once implemented, the habitats should be monitored to assess the success or otherwise of the scheme. This would involve, ideally, twice annually (spring and summer) monitoring of the habitats and species on site, at least during the establishment period and annual survey for the presence/absence/numbers of GCNs. The information gathered should be used to inform the maintenance regime to maximise site biodiversity. All records of protected species should be supplied annually to Cofnod – North Wales Environmental Information Service *www.cofnod.org.uk.*

7.3 Monitoring should include for recording invasive species (e.g. Himalayan Balsam, Ragwort etc.) and a management regime should be prescribed as necessary where invasive plants are observed.

7.4 Where there is apparent conflict between protected species on site and on-going management, the survey will be able to advise accordingly.

7.5 The ecologist should be able to advise any change in the management regime where there are clear benefits to change. It is important, therefore, that the management regime remains flexible and respond to changing circumstances.

8.0 Management Schedule

Habitat	Action	Approx. Area (m^2)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Wildflower grassland/meadow areas	Strim, leaving arisings on site	50						X	X					
Tall ruderals/bramble scrub	Strim/thin as required, leaving arisings on site	40									X			
Marsh/Marshy grassland	Selectively remove invading scrub by hand	10												X
Existing deadwood	Create habitat piles											X	X	
Ponds	Clear, as necessary, centre of pond to maintain open area. Arising to be left overnight adjacent to pond to allow return of invertebrates	100	X										X	X
Invasive species	Commence programme to eradicate by hand-pulling where required						X	X						
Hedgerow	Trim hedgerows; create habitat piles with the arisings. Manage to between 1.5 – 2.0 m, 'A' profile.	70 m										X		
Newt mitigation area	Litter pick (as necessary)													
Monitoring	Monitor, yearly to establish presence/absence and population numbers						X							
Maintenance of Fencing and Gates	To be annual check and repair of fencing and gates												X	X

9.0 Contacts and Bibliography

9.1 Contacts

For further information on this survey report, contact:

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9.2 Bibliography

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The Conservation (Natural Habitats, &c.) Regulations 1994, as amended 2010. HMSO, London.
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Appendix 1: Treatment of Himalayan Balsam (*Impatiens glandulifera*) and Ragwort (*Senecio jacobaea*)

See also Defra guidance: https://www.gov.uk/wild-plants-dangerous-invasive-and-protected-species. The most effective, if labour-intensive, means of eradicating these plants is to hand-pull them before they set-seed. Because of toxins present within ragwort, gloves will be required to prevent the contact of the skin with the sap. The material can be composted on site where there is no seed present. The use of herbicide within a wildlife area, especially one that has an open watercourse running through it is not recommended.