Land off New Brighton Road, New Brighton

Precautionary Compensatory Scheme for Great Crested Newt (*Triturus cristatus*)

Compiled by Ecology Services Ltd.

on behalf of

Stuart Milne Homes NW Ltd.

May 2021



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Contents

1.0	Introduction	2
2.0	Avoidance and Mitigation Measures	4
3.0	Precautionary Compensation Measures	4
4.0	Management Plan	6
5.0	Ecological Compliance Audit Scheme	8
6.0	Conclusion	8
7.0	References	9

Figures

Figure 1: Proposed Planning Layout

Figure 2: Precautionary Compensation Scheme

Appendices Appendix 1: Ecological Compliance Audit Report Form

1.0 Introduction

- 1.1 Ecology Services Limited was commissioned by Stewart Milne Homes NW Ltd. in April 2021 to update the precautionary compensatory scheme for the Land off New Brighton Road, New Brighton, Flintshire, National Grid Reference (NGR) 325193, 365564. The proposals for the site are for housing and associated infrastructure on land to the south of New Brighton Road and to the east of Argoed View. See Figure 1: New Brighton, Mold, Proposed Layout (V23 07.04.21).
- 1.2 Subsequent to an appeal in relation to a previous planning application at the site, the scheme has been revised with a reduction in the number of units from 92 to 84, a new footpath along the northern boundary of the site, an increase in the size of the Local Equipped Area for Play (LEAP) to the south west of the site and of the Public Open Space (POS) to the north west of the site.
- 1.3 The precautionary compensatory scheme has been updated to take account of the revisions to the scheme. Overall, there has been a slight increase in the quantum of amphibian habitat to be provided.

Great Crested Newt Survey Background

- 1.4 Great crested newt surveys to inform the previous planning application included undertaking eDNA samples of Pond 1, approximately 249m north west of the site, in 2018 and 2019 (both were negative results), undertaking a precautionary Habitat Suitability Index (HSI) assessment of Pond 2, approximately 70m north of the site where there was no access and reviewing existing data records.
- 1.5 eDNA samples from Pond 1 returned negative results on two occasions, however, access to sample this pond in 2021 was refused. It is a requirement of European Protected Species licensing in Wales, that surveys submitted with a licence application are less than two years old. The survey data at the time of submission of the planning application (anticipated early July 2021) will therefore just be out of date in relation to licensing requirements. Pond 1 has, however, been sampled twice in recent years and is on the outer limit of the 250m buffer zone around the site, therefore this is not considered a significant constraint to the assessment. Access to a second pond (Pond 2), approximately 70m north of the site.
- 1.6 A precautionary Habitat Suitability Index (HSI) assessment of Pond 2 was made scoring maximum values for all indices that could not be actually scored due to the lack of access, for example: water quality, macrophyte cover, absence of fish and water fowl. This resulted in a score of 0.828 (Good) for GCN. Taking into account that waterfowl and fish would likely be present in such a large pond and that water quality and macrophyte cover score would likely be lower because of this, a more realistic score of 0.257 (poor) is possible when the HSI calculation run again. While an HSI assessment is not a substitute for undertaking surveys, it is considered unlikely that GCN would be present in Pond 2 given the above.
- 1.7 The proposed development site was also subject to reptile surveys during September 2018 when amphibians are also active moving to and from ponds. A total of 45 refugia were laid and checked on seven occasions. The refugia were distributed around the periphery of the site and along the strip of scattered trees running north to south across the site, encompassing the more suitable habitats for amphibians as well as reptiles. The survey did not detect any presence for GCN, although a total of eleven common toad were found beneath refugia (Pond 2 is considered ideal for common toads).
- 1.8 The application site provides foraging habitat only as it comprises mostly semi-improved grassland, with the exception of boundary hedgerows (which are mostly being retained), an area of marshy grassland plus some areas of taller vegetation around the boundaries and

associated with some scattered trees centrally within the site. There is nothing within the site that is dense enough to be considered ideal for refuge or hibernation.

- 1.9 The Environmental DNA (eDNA) and Habitat Suitability Index (H.S.I.) Survey Report for Great Crested Newt (Ecology Services Ltd., 2021) explains, in detail, research on GCN and use of terrestrial habitats. In brief, the research has found that where suitable habitats exist within 100m of a breeding pond most GCN will utilise these habitats. Habitats within 100m of Pond 2 provide ideal habitats to support GCN through their life cycle.
- 1.10 While it is considered highly unlikely that GCN are present within the proposed development site, there remains some uncertainty over the status of GCN at the site due to refusal of access to Pond 2.

Planning Background

- 1.11 The previous planning application included a precautionary compensatory scheme as requested by Natural Resources Wales (NRW) during pre-application consultation dated 5th June 2019. As requested by NRW, this precautionary method statement included:
 - a. Detailed amphibian avoidance and mitigation measures;
 - b. Provision of land for long term amphibian conservation purposes. The ownership of this land to be transferred to a body with the specific remit for long term amphibian conservation action;
 - c. Management plan for the compensation area. This plan to include site management; surveillance based on the online Wales GCN Monitoring Scheme; and wardening;
 - d. Provision of resources for site management, monitoring and surveillance for a duration of not less than 25 years. We advise either the imposition of index linked ground rent service charges on each of the proposed new dwellings or commuted sum;
 - e. Amphibian friendly surface water management scheme; and
 - f. Ecological compliance audit scheme.
- 1.12 Following a further consultation response from NRW consultation response dated 2nd September 2019, the precautionary compensatory scheme was revised to include a dedicated area that does not include SuDS features and additional amphibian terrestrial habitat towards the western end of the site within an area of Public Open Space (POS).
- 1.13 The previous planning application was refused partially on the grounds of 'the potential to cause disturbance to great crested newts and/or loss or damage to their resting places'.
- 1.14 During the appeal to this planning decision, the planning inspector summarised that their 'overall conclusions in respect of GCNs are that the proposed development would not conflict with development plan or national policy or with the requirements of the Habitats Regulations'.
- 1.15 This conclusion was based on a number of factors including the precautionary terms used by the Council and Natural Resources Wales including 'the <u>potential</u> to cause disturbance' and that '<u>it is possible</u> that the species uses the site', which was based on 4 records of GCN within the vicinity of the site. These records were investigated and concluded that 3 'no longer had much relevance' and 1 has not been confirmed as a GCN; evidence provided by local residents 'do not materially change the paucity of evidence of GCNs using the appeal site'; and the survey effort of the pond that had access was considered 'reasonable and adequate'.

1.16 In relation to the adequacy of the compensatory element of the proposed scheme the Inspector concluded that "*if the evidence of any use of the site by GCNs is highly questionable, as in this case, then extensive compensatory measures cannot be justified*".

2.0 Avoidance and Mitigation Measures

- 2.1 The following avoidance and mitigation measures are recommended to minimise any risk of harm to amphibian species:
- 2.2 Reasonable Avoidance Measures:
 - All contractors will be subject to a toolbox talk, to raise awareness of the potential presence of common amphibians. The toolbox talk should raise awareness by reviewing photographs of species likely to be present on site, discussing their habitat preferences, legal protection and what to do should an amphibian be suspected or found on site.
 - As a precautionary measure, a one-way Temporary Amphibian Fence (TAF) shall be erected along the northern boundary of the site to prevent common amphibians accessing the site during the development phase.
 - Prior to the fencing works commencing, all tall vegetation within the site shall be rendered less suitable for common amphibians by strimming to a height of 150mm to persuade any common amphibians to leave the site. The cuttings shall either be removed off site or raked thinly so not to provide additional refuge habitat.
 - Fencing works shall be undertaken the following day and the one-way fence line hand searched by an ecologist prior to works.
 - Any hedgerow and scrub bases to be removed shall be first hand searched by an ecologist.
 - The TAF shall be kept in good condition during the development and upon completion of the development shall be carefully removed by removing the stakes and cutting the membrane at ground level. These works shall be completed under the supervision of an ecologist.
- 2.3 If at any time a GCN is suspected or found on site, works will cease in that area and the acting consultant or NRW contacted for advice.
- 2.4 If at any time high numbers of common toad are encountered during the development phase (>10), the acting consultant should be notified and the avoidance measures reviewed.

3.0 Precautionary Compensation Measures

- 3.1 The precautionary compensation scheme is illustrated on Figure 2. While the grassland provides potential foraging habitat, there is nothing so dense to be considered ideal for refuge or hibernation. The boundary hedgerows (which are mostly being retained), the area of marshy grassland and some areas of taller vegetation around the boundaries and associated with some scattered trees centrally within the site provide greater potential.
- 3.2 The precautionary compensation scheme, therefore, focusses on maintenance of habitats around the boundaries of the site, some of the northern boundary falling within 100m of Pond 2. Approximately 190m of new native species hedgerows will be planted along the eastern and southern boundaries to link with existing boundary hedgerows and providing a continuous hedgerow around the perimeter of the site. The new hedgerows will comprise field maple (*Acer campestre*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), wild cherry (*Prunus avium*) and dog rose (*Rosa canina*). An area of native scrub (approximately 140m²) will also be planted along the southern boundary of the site comprising dogwood (*Cornus sanguinea*), hazel, holly and dog rose, elder (*Sambucus nigra*) and guelder rose (*Viburnum opulus*).

- 3.3 There is a strip of grassland, between 4m and 6m wide incorporating a 2m wide footpath, running along the development side of the hedgerow along the northern boundary, further areas along the southern and south western boundaries connected via existing and proposed boundary hedgerows and within the public open space, totalling 0.190ha, which will be managed to provide suitable habitat for GCN. This area will be seeded with a mix appropriate to the site and should be of local provenance where possible. Appropriate species recorded during the extended Phase 1 Habitat survey include: false oat-grass (*Arrhenatherum elatius*), Yorkshire fog (*Holcus lanatus*), cock's foot (*Dactylis glomerata*), meadow foxtail (*Alopecurus pratensis*), rough meadow-grass (*Poa trivialis*), crested dog's tail (*Cynosurus cristatus*), tufted hair-grass (*Deschampsia cespitosa*), creeping bent (*Agrostis stolonifera*), cock's-foot (*Dactylis glomerata*), red fescue (*Festuca rubra*), common knapweed (*Centaurea nigra*), bird's-foot trefoil (*Lotus corniculatus*), greater stitchwort (*Stellaria holostea*), pignut (*Conopodium majus*), vetches (*Vicia* spp.) and meadow buttercup (*Ranunculus acris*).
- 3.4 A dedicated compensation area is also provided at the north western end of the site, approximately 0.155ha. This area will include a pond providing a potential stepping stone between Pond 2 and a pond approximately 440m to the west. This area is already bordered by dense hedgerows along the northern, western and southern boundaries. The existing grassland within the compensation area will be allowed to grow up and managed to provide a dense, tussocky sward. Over time it will naturally increase in species diversity. If any seeding is required, it will be as described above.
- 3.5 In line with Flintshire County Council's SPG on Great Crested Newt Mitigation Requirements the new pond will be a minimum of 10 x 10m with gently sloping/shelved margins and include a deeper area with a water depth of at least 1m. The pond will be left to vegetate naturally. The spoil arising from digging new pond will be left on site as un-compacted mounds or banks or mixed with other materials such as clean rubble, to provide a good newt shelter/hibernation site.
- 3.6 There is also a substantial Sustainable Drainage System (SuDS) feature in the east of the site which has been designed to have safe, gentle slopes with a riparian dry-level bench, a wet, shallow safety bench and a deeper water zone to provide a physically and ecologically diverse landscape. There will be some localised marginal planting with flowering rush (Butomus umbellatus), marsh marigold (Caltha palustris), greater pond sedge (Carex riparia), meadowsweet (Filipendula ulmaria), yellow iris (Iris pseudacorus), yellow loosestrife (Lysimmachia vulgaris), water forget-me-not (Myosotis scorpioides), ragged robin (Silene flos-cuculi), marsh woundwort (Stachys palustris), brooklime (Veronica beccabunga) and water mint (Mentha aquatica). The deeper water zone will provide additional aquatic habitat for GCN. The public open space around the SuDS pool (approximately 0.135ha) will be sown with Emorsgate WFG9 Wetland and Pond Areas mix and the wider area around the SuDS managed to provide suitable habitat for GCN. The addition of lesser spearwort (Ranunculus flammula) to the marginal planting and cuckoo flower (Cardamine pratensis) and marsh bedstraw (Galium palustre) to the Emorsgate WFG9 is recommended, these species having been recorded within the area of marshy grassland within the site.
- 3.7 Seven artificial newt hibernacula (hibernation sites) will be constructed (according to English Nature, 2001) throughout the amphibian habitat in addition to provision of log/ rubble piles. In line with Flintshire County Council's SPG each of these will be 50m² in area.
- 3.8 In total, the following habitats will be retained/created within the site:
 - Dedicated compensation area: 0.155ha (including a 100m² pond)
 - Habitat provision around the margins of the site/within POS: 0.19ha¹

¹ This figure previously included the area of public open space around the SuDS pool in error.

- Grassland surrounding the SuDS pool: 0.135²ha
- New hedgerow: 190m
- Retained hedgerow: 656m
- Hibernacula: 7 no.
- Pond: 1 no. (plus a deeper water zone within the SuDS providing potential further aquatic habitat for GCN)

Amphibian Friendly Surface Water Management Scheme

3.9 The proposed development incorporates SuDS and has been designed with dropped kerbs and inset kerbs by gully pots in roads to minimise risk of incidental capture/killing of GCN.

4.0 Management Plan

Five Year Maintenance Period

4.1 Plant stock and soft landscaped areas shall be maintained for a period of five years via the developers' agent or appointed Management Company during which time the following operations shall be carried out.

Regular visits

- 4.2 Monthly maintenance visits to include:
 - Hand weeding planting beds
 - Removing litter
 - Sweeping mulch spillage
 - Re-firming plant stock as necessary
 - Adjusting stakes and ties as necessary
 - Pruning plant stock as required to encourage good form
 - Checking all plant stock and reporting signs of pests, disease, death and damage
- 4.3 Plants that root directly from the base and has shallow roots will be removed by hand, by removing the main root system. Weeds with a clumped, fibrous root system will be removed using the crowning method, by cutting the roots from the crown of the weed. Large weed infestations will be removed by spraying an approved chemical that will not cause harm to GCN directly onto the target infestation. Trees or vines will be removed using the cut and paint method, by cutting the base of the stem close to the ground and immediately applying herbicide to the cut.

Watering

- 4.4 Plant stock to receive the following quantities of water:
 - Semi-mature trees: 75 litres each month between April and September
 - Heavy Standard trees: 35 litres each month between April and September
 - Shrubs and transplants: 5 litres/plant on three occasions throughout growing season.
- 4.5 Watering to be undertaken during the first 24 months as needed to maintain plant health.

Plant replacements

4.6 All dead, dying and vandalised plant stock shall be replaced, at the end of each growing season throughout the maintenance period.

Long Term Management and Maintenance

4.7 Following completion of the development, the mitigation land will be transferred to a management company which will be responsible for the ongoing management, monitoring

 $^{^{2}}$ This figure was previously incorrectly given as the area of the SuDS pool itself (0.15ha) rather than the area of public open space around the SuDS pool.

and surveillance for a duration of not less than 25 years. This will be funded via an annual service charge for residents. Long term management and maintenance will include:

- Hedgerow management;
- Scrub management, e.g. long rotation coppice;
- Mowing/ cutting of grassland;
- Repair of hibernacula;
- Removal of fish/ invasive non-native plant species (if required);
- Removal of dumped rubbish/litter;
- Reinstatement of damaged habitat (if required);
- Repair to any protective fencing; and
- Repair/replacement of damaged interpretation boards.
- Aquatic vegetation management in the new pond/SuDS area;
- Clearance of shading tree or scrub cover around the new pond/SuDS margins;
- Desilting and clearance of leaf-fall (infrequent, long-term).
- 4.8 The following general management of hedgerows will benefit a wide range of fauna. Hedgerows will be cut by hand (with no vehicles entering the amphibian habitat) at three yearly intervals on rotation with 10-30% cut in any one year at a height of 3-4m. Approximately 30% will be left uncut for between 7 and 10 years. Localised laying/coppicing may be required if hedgerows become gappy. It is important that dense cover is maintained at the base to provide habitat for amphibians. Hedgerow management must be undertaken between September and February to avoid impacting on nesting birds.
- 4.9 Long-term scrub management will comprise small-scale rotational coppicing by hand as required to maintain dense cover. The length of rotation will depend on the growth rate of the species used but is likely to be of the order of 10-15 years.
- 4.10 The grassland created as terrestrial habitat will be floristically rich, structurally varied and consequently should be invertebrate-rich, providing a good foraging resource for amphibians. The grassland will be managed by cutting at least once annually by hand strimming to a height of 150mm at a time when newts are less likely to be harmed e.g. during hot dry weather in late July/August (Langton, et. al., 2001). The clippings shall be left *in situ* for three days to allow seed drop, then removed to prevent nutrient build up. A margin of uncut vegetation up to 5m in width will be left alongside hedges, scrub and around the SuDS margins on a three-year rotation. One third will be cut in any one year, each third being left uncut for two successive years.
- 4.11 The new pond and balancing pond will be monitored and managed as necessary, for example reduction in cover of plant species (by hand) avoiding the egg laying period (i.e. the work will be carried out during September to November). The aim will be to provide 2/3 submerged pond cover and 1/4-1/2 emergent / floating vegetation. Open, less vegetated areas are required for newts to display and there should be no shading scrub/trees on the southern margin.
- 4.12 If at any time a GCN is encountered during habitat management, works in that area should cease and the advice of a suitably qualified ecologist sought.
- 4.13 The hibernacula and rubble/ log piles should require little maintenance other than repairing any damage to them. Depending on the nature of repair work, a licensed GCN worker may need to be present, as a precautionary measure.

Surveillance and Monitoring

4.14 Surveillance and monitoring will be undertaken twice per year and will include condition checks of the terrestrial habitat (hedgerows, scrub and grassland) and qualitative checks of

the SuDS, such as the presence (and use of) egg-laying plants, presence of late-stage larvae (July-August) and aquatic habitat permanence. The following items will be assessed:

- Hedgerow and scrub management and whether any localised laying/coppicing is required.
- Grassland management i.e. whether coarse grass species are spreading at the expense of species diversity.
- Aquatic habitat i.e. whether any vegetation management is required, control of invasive species/fish, desilting, clearance of leaf-fall or shading tree or scrub cover around the new pond/SuDS margins;
- Hibernacula and log/rubble pile whether any maintenance is required.
- Habitat damage/ pollution whether any damage needs addressing/ litter needs removing
- Interpretation boards whether any repair/replacement is required
- 4.15 Prompt action will be taken to address any of the above incidents by, or in the presence of, a licensed GCN worker. The advice of Natural Resources Wales will be sought with respect to current recommended methods for removal of fish or alien plants.
- 4.16 The risk of post development interference impacts will be minimised through the provision of interpretation boards within areas of terrestrial habitat and information in sales packs to inform residents of the importance and function of these areas. Notice boards or leaflets provided to local residents will provide contact details for reporting incidents of tipping, pollution and any other damage.
- 4.17 Where applicable, the results of the monitoring will be fed into the online Wales GCN Monitoring Scheme.

5.0 Ecological Compliance Audit Scheme

5.1 It is considered that this precautionary scheme would meet the Tier 2 requirements of Natural Resources Wales Compliance Audit Guidance Note for EPS development licences. As such, an internal licence compliance audit report will need to be completed by developer. The developer will be required to undertake a compliance audit using key performance indicators. The developer is responsible for submitting the information and for its accuracy. In most cases the scheme ecological consultant will complete the species-specific sections of the report form and sign off that they have been undertaken as specified. The developer will be responsible for appointing the ecological consultant to undertake the internal audit.

The ecological consultant will be responsible for:

- defining appropriate (key) performance indicators that will inform an inspection, utilising the NRW audit template;
- determining the minimum number of assessment visits required to demonstrate compliance;
- defining what documentation, including logs, will be required to inform inspections;
- progressing remedial or contingency actions identified during audit; and
- reporting back to the developer and NRW.
- 5.2 A draft Ecological Compliance Report Form is included at Appendix 1.

6.0 Conclusion

6.1 The implementation of the recommended precautionary avoidance and mitigation measures will minimise any risk to of harm to amphibians, including GCN (if present), during the works. The implementation of the precautionary compensation scheme with a targeted management plan, funded via an annual service charge for residents, will ensure long term availability of

suitable habitat for amphibians. The incorporation of a deeper water zone as part of the SuDS will provide additional breeding habitat for amphibians.

6.2 These measures will ensure that the proposed development will not be likely to be detrimental to the maintenance of the population of GCN (if present) at a favourable conservation status in its natural range. The creation of a stepping stone pond suitable to support GCN has the potential to improve the favourable conservation status of this species, should they be present in the area.

7.0 References

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Figure 1: Proposed Planning Layout





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Rev

Proposed Planning

Layout

Argoed View, Nr Mold

STEWART

HOMES

Stewart Milne Homes Harrier House 2 Lumsdale Road Cobra Business Park Trafford Park Manchester Telephone (0161) 866 6900 fax (0161) 866 6909

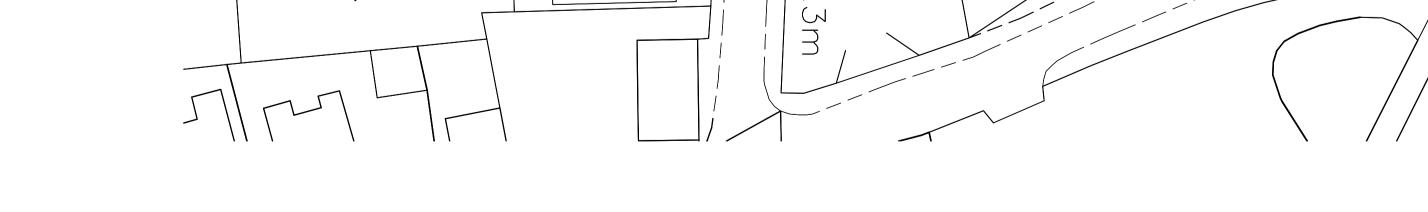
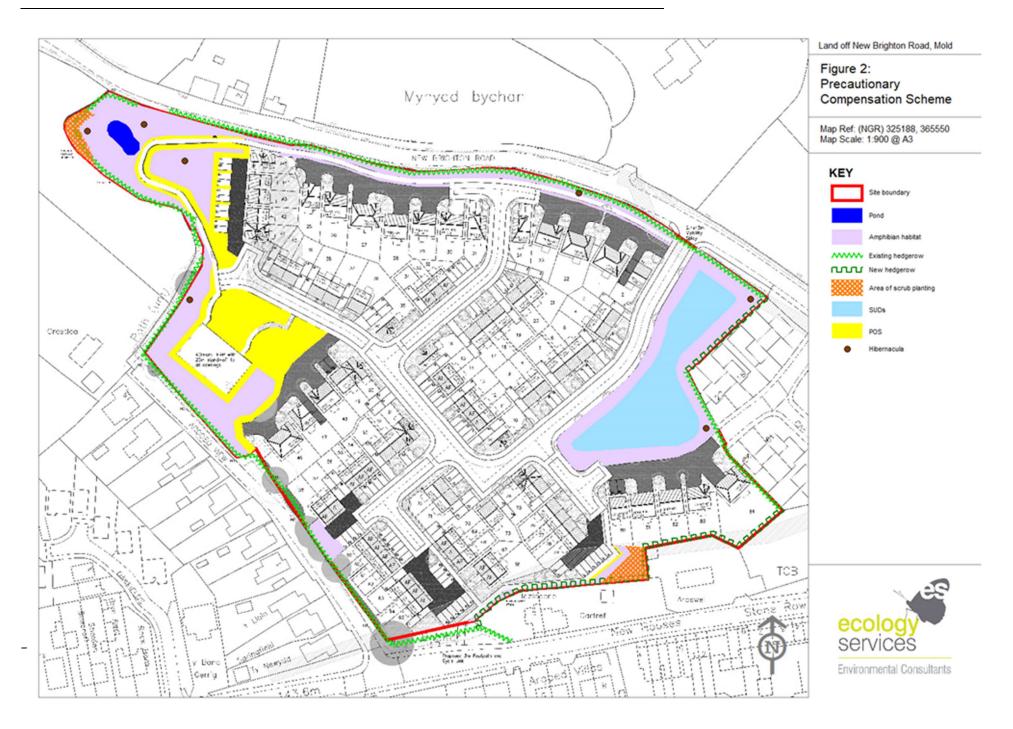


Figure 2: Precautionary Compensation Scheme



Appendix 1: Draft Ecological Compliance Audit Report Form

Performance Indicator	Evidence required	Pass (Y/N)	Action	Rectified (date)
All contractors given a tool box talk in advance of works regarding the presence of GCN and methods to be implemented.	Copy of tool box talk documents and signed attendance sheet.			
Installation of one way temporary amphibian fencing, incl. advance strimming and hand searching of fence line prior to installation.	Photographs and log of any amphibians encountered and relocated.			
A suitably qualified ecologist shall be present during removal of any hedgerows or scrub.	Log of ECoW activities incl. any amphibians encountered/ relocated, locations and photographs detailing hedgerow/ scrub clearance.			
Creation and management of amphibian compensation habitat	 Documentation of hedgerow/ scrub planting mix / grassland seed mix/ photographs. Interpretation board design/ sales pack information/ photographs. Landscape contractor's log of maintenance visits, remedial action taken and photographs. Management company's log of management, monitoring and surveillance (incl. photographs) including any additional actions undertaken. 			
Implementation of amphibian friendly surface water management scheme	Engineer's drawings, photographs.			