Great Crested Newt Appraisal and Method Statement

Waterswallows – Peaking Plant

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Amendment Record

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Appendix 1 **HSI**

1 Introduction & Background

1.1 Purpose and Scope of this Report

1.1.1 RPS Planning and Development Ltd (RPS) was commissioned to undertake a more detailed assessment of the status of great crested newt (GCN), and to prepare a Method Statement in relation to GCN for a site located at land off Waterswallows Road, Buxton.

1.1.2 STOR 119 Ltd has submitted a planning application for the construction of an energy reserve facility at the site (Reference: HPK/2017/0558). A preliminary ecological appraisal was produced for the site and submitted in support of the planning application (RPS 2017). The consultation response to the application that has been received from Derbyshire Wildlife Trust (reference DWTHPK420) recommends that: *"a great crested newt Method Statement is produced to include a more detailed assessment of why the likelihood of impacting this species is considered low by RPS. Ponds located within 500m of the development site should be subject to a HIS. Precautionary working measures should then be provided, in accordance with Natural England non-licensable avoidance measures."*

1.1.3 This report presents a detailed assessment of the likelihood of GCN utilising the on-site habitats and a precautionary Non Licence Method Statement (NLMS), detailing the measures that will taken to minimise the risk of harm to GCN during construction and what measures would be taken in the event that GCN are encountered.

1.1.4 The NLMS is based on a review of the development proposals provided by the client, third party information available via the planning portal and a survey of other ponds within 500m of the site, where access was available. The recommendations included within this report are the professional opinion of an experienced ecologist, based on their personal interpretation of legislation and planning policy.

1.2 Relevant Legislation and Planning Policy

1.2.1 GCN are fully protected under Schedule 2 of the Conservation of Species and Habitats Regulations 2017 and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Combined, these acts make it an offence to:

- Kill, injure or take a great crested newt (or attempt to);
- Destroy any place where they live or breed;
- Damage any one of the above places (or any part of it);
- Obstruct access to these places;
- Disturb a great crested newt in any place it uses for shelter;
- Disturb the species such that it affects its ability to hibernate or migrate;
- Sell/ exchange (or offer for sale/exchange) any part of a great crested newt, live or dead.

1.2.2 Offences can be deliberate, intentional or reckless and penalties for any of the above include fines of up to £5,000.00 and imprisonment of up to 6 months, per animal affected.

1.2.3 GCN are also listed in Section 41 of the Natural Environments and Rural Communities Act (NERC) Act 2006 as Species of Principal Importance for conservation in England. National objectives and targets for GCN include the maintenance of the geographical range and viability of existing great crested newt populations to ensure that it remains in favourable conservation status.

1.2.4 Under the National Planning Policy Framework 2012 the presence of any protected species is a material planning consideration. The Framework states that impacts arising from development proposals must be avoided where possible or adequately mitigated/ compensated for and that opportunities for ecological enhancement should be sought.

1.2.5 The local authority is also required to have due regard for biodiversity in general when assessing planning application under the NERC Act 2006.

1.2.6 At the local level, the site falls within the area covered by the High Peak Biodiversity Action Plan (BAP), in which GCN are identified as a Priority Species.

2 Background Information

2.1 Site Description and Context

2.1.1 The proposed development site is located to the north of Waterswallows Road, immediately north east of the Waterswallows Industrial Estate and Household Waste Recycling Works, between the villages of Fairfield, Peak Dale and Hargatewall.

2.1.2 The survey area comprises semi-improved grassland with a small area of tall ruderal vegetation and several dry stone walls.

2.1.3 The Waterswallows Industrial Estate forms the site's south-western boundary, along the eastern end of which is a mature sycamore treeline. To the north and east the site adjoins pasture fields which are predominantly sheep and horse grazed. The site is accessed off Waterswallows Road from the south. To the south of Waterswallows Road there is a large former mineral extraction site, Waterswallows Quarry. There are two waterbodies in the base of the former mineral extraction area.

2.2 Local Status of GCN`

2.2.1 A desk study was undertaken as part of the original Preliminary Ecological Appraisal. The desk study returned five records of GCN from within 2km of the site in the last 10 years. The closest GCN record is from a tank within Waterswallows Quarry, 270m from the site boundary. Anecdotal evidence suggests the tank is no longer present, however GCN are considered possibly present in the quarry and associated waterbodies within the land parcel. There is also a known GCN population from a location 1360m to the north of the site (Derbyshire Wildlife Trust 2017).

3 Assessment Methodology

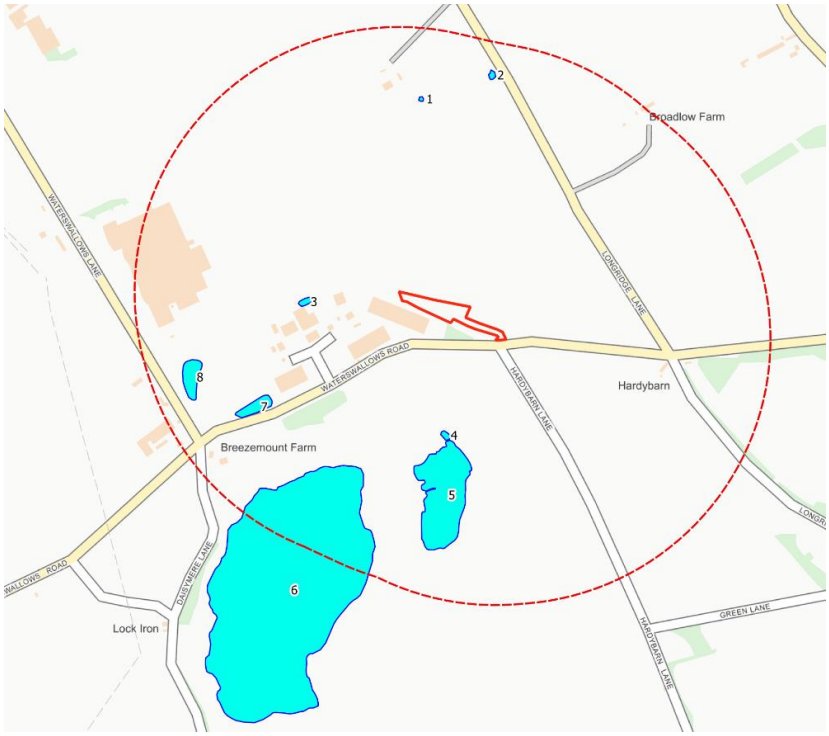
3.1 Zone of Influence

3.1.1 The term Zone of Influence (ZoI) is used to describe the geographic extent of potential impacts of a proposed development. The Zone is determined by the nature of the development and also in relation to individual species, depending on their habitat requirements, mobility and distances indicated in any best practice guidelines.

3.1.2 Great crested newts are typically considered to move up to 500m from their breeding ponds although a very high proportion of the population within a pond will typically utilise terrestrial habitat much closer to the breeding pond within the majority of newts at most sites probably using habitats within 250m of the pond (Langton, Beckett and Foster 2001).

3.1.3 Taking a precautionary approach the ZoI for this study is taken to be land on land within 500m of the site boundary. The site location in its local context including the zone of influence is shown in Figure 3.1.

Figure 3-1: Site and Waterbody Location Plan



3.1.4 The zone of influence defined 9 waterbodies within 500m of the site which were identified were identified on publicly available OS mapping during the original Preliminary Ecological Appraisal (RPS 2017). The waterbodies (1 – 9) covered by this appraisal are shown on Figure 3.1.

3.2 Background Data Search

3.2.1 A background data and planning search was carried out by Derbyshire Wildlife Trust and High Peak Planning Portal[1] for information on previous surveys of nearby ponds that could inform the assessment of their suitability to be used by GCN.

3.3 Site Survey and Habitat Suitability Assessment

3.3.1 A site inspection was undertaken by RPS in November 2017 to review the status of waterbodies and terrestrial habitat within 500m of the site, in order to assess in more detailed the likelihood of GCN utilising on-site habitats. The purpose of the site visit was also to obtain the required information to enable a Habitat Suitability Index (HSI) assessment of all accessible waterbodies within 500m of the site. The HSI methodology is provided in Appendix 1.

3.3.2 In reviewing the likelihood of GCN utilising onsite habitats, and also the potential for GCN to be harmed, the Natural England Risk assessment tool is used. This is provided as part of the European Protected Species (EPS) mitigation licence Method Statement Template[2] for GCN and provides a means of assessing the likelihood of impacts on GCN based on the extent of habitat to be affected, type of impacts (e.g. damage disturbance, permanent loss etc) and the magnitude of the impact in terms of area of habitat or number of ponds affected.

[1] (http://planning.highpeak.gov.uk/portal/servlets/ApplicationSearchServlet0).

[2] https://www.gov.uk/government/publications/great-crested-newts-apply-for-a-mitigation-licence

4 GCN Habitat Suitability Appraisal

4.1 Desk Study

4.1.1 The quarry site, its lake (waterbody 6) and ponds (waterbodies 4 and 5) were assessed in 2016 by a third party as part of an ecological appraisal of a nearby site (Aecom, 2016). The assessment also included an eDNA survey of waterbody 4. The result of the eDNA survey of waterbody 4 was negative. No information is provided on the suitability of the other two waterbodies but it is assumed they were considered unsuitable as no further survey was recommended.

4.2 HSI Assessment of Ponds

4.2.1 Nine waterbodies within 500m of the site boundary were identified from OS mapping. The closest waterbody is a small pond located approximately 180m to the west of the site within the Water swallows Industrial Estate and Household Waste Recycling Centre. Two further waterbodies are located approximately 220m from the site within the quarry to the south of the site and Waterswallows Road. All of the other waterbodies are located over 250m from the site with the next closest being 320m from the site boundary. The nine waterbodies within 500m of the site are shown in Figure 1.1

4.2.2 Waterbodies 4 to 9 were located on private land and were not accessible. Waterbodies 1, 2 and 3 were accessible and were inspected during the site visit. Of these only one (Waterbody 2) contained standing water and was therefore suitable for HSI assessment.

4.2.3 The HSI score for the pond was 0.56 indicating below average suitability for GCN. Brief habitat descriptions of accessible ponds are given below.

Waterbody 1

4.2.4 Waterbody 1 is located 435m north of the site was within a sheep grazed field. At the time of the survey on 1st December 2017, the pond comprised a depression in the ground with grazed species-poor grassland and a small patch of rush *Juncus sp*. The depression was poached (disturbed by sheep) in places around the margin.

Figure 4-1: Waterbody 1

Waterbody 2

4.2.5 Waterbody 2 is located 465m northeast of the site also within a sheep grazed field (Figure 3.2). A wooden post and barbed wire fence surrounded one side of the pond and through the middle. Rush species dominated the pond with poached sides.

Figure 4-2: Waterbody 2

Waterbody 3

4.2.6 Waterbody 3 is located 180m to the west within a sheep grazed field. No significant depression was visible with the pond comprising a small stand of rush *Juncus sp* and water mint *Mentha aquatica* within the grassland at the base of a fallen electricity pylon (Figure 4.3).

Figure 4-3: Waterbody 3

4.3 Terrestrial Habitat Suitability and Risk Assessment

4.3.1 The site comprises poor habitat for GCN largely comprising heavily grazed species-poor pasture. A very short section of drystone wall within the site does not form a direct connection between off-site ponds so is unlikely to be used by dispersing newts. There are no other structures within the application site which could be used by sheltering GCN.

4.3.2 Only three of the off-site ponds are located less then 250m from the site. The remaining ponds are located over 320m from the site. The nearest record of GCN is from a water tank in the quarry and located 270m from the site. The tank is no longer present and an eDNA test of the nearest pond within the quarry (220m to the south) was negative. All of the ponds are separated from the site by extensive of sub-optimal habitat, comprising shortly grazed species-poor semi-improved grassland. The ponds to the south and west are additionally separated by areas of bare ground within the quarry to the south, and the Waterswallows household waste centre and Waterswallow Industrial estate which lies to the west of the application site. This forms a barrier between the waterbodies and the application site.

4.3.3 Given the poor suitability of the onsite habitats, the distance of the site from the nearest ponds (a over 250m from the nearest known pond supporting GCN) and the intervening poor suitability habitat between the ponds and the site, it is considered highly unlikely the population of GCN present would utilise habitats within the site when not within their preferred breeding pond.

4.3.4 The site measures approximately 0.3ha (almost all of which is heavily poor semi-improved grassland) over 250m from the closest GCN record. The Natural England Risk Assessment Tool indicates that the loss of up to 0.5ha of land within 100m to 250m from the nearest breeding pond would be unlikely to result in an offence. The Risk Assessment Tool does not take into account variables such as barriers and different levels of habitat suitability. Given the presence of potential barriers to newt movement and the poor suitability of the on-site and surrounding

habitats, the Risk Assessment Tool provides a strong indication that the development is unlikely to result in an offence.

5 Non Licence Method Statement

5.1.1 The GCN appraisal and Risk Assessment has concluded that the development is unlikely to result in an offence under the wildlife legislation protecting GCN.

5.1.2 Residual risks associated with the development proposals with respect to GCN are the very low/negligible likelihood of accidental killing or injury of individual newts which could potentially utilise the site in very small numbers. While this is considered extremely unlikely, a Precautionary Method of Works is outlined below to address any residual risk of accidental harm to individual GCN.

5.2 Pre-commencement Checks

5.2.1 An ecological clerk of works (ECoW) will be appointed to oversee the development activities. Prior to site clearance or the commencement of earthworks the ECoW will carry out a night time torchlight survey of the site to confirm absence of GCN.

5.2.2 The survey should be undertaken in the period when newts are active (March to October), during mild weather (night time temperatures above 5°C) and ideally when there is light rain or there has been very recent rain so that conditions are optimal.

5.2.3 The survey will be carried out by a minimum of two people using high powered torches (at least 1 million candle power) with a systematic search of the application site and boundary features.

5.2.4 If no newts are found then works can proceed following the measures outlined below. If GCN are encountered within the site then the works would need to covered by a Natural England EPS mitigation licence to allow the work to proceed lawfully.

5.3 Toolbox Talk

5.3.1 Although an encounter with this species is considered very unlikely, the site contractor teams will be briefed on the potential for GCN to be present, on the legal protection of GCN and on the precautionary working method that will be followed.

5.3.2 All site staff will be made aware of how to identify newt species and of what steps to take in the event that a GCN is encountered.

5.3.3 Information will be provided during the toolbox talk which will be retained at the site office at all times for reference. This would include information amphibian identification, working method and contact details for the ecologist.

5.4 Habitat Removal and Destructive Clearance

Dry Stone Wall Removal

5.4.1 The section of dry stone wall within the site provides a potential shelter for GCN. To minimise risk of disturbing hibernating animals the removal of this section of wall should only be carried out when newts are likely to be active (March to October) with night time temperatures above 5°C).

5.4.2 The stone wall should be dismantled by hand under the supervision of a Natural England Licensed Ecologist. Individual stones would be removed allowing the ecologist to undertake visual searches for newts in cavities in the base of the wall exposed by the removal of stones. A torch would be used to facilitate the inspection of cavities within the wall. GCN are likely to be close to ground level if present. At the bottom of the wall it may be necessary to dig up the base stones. This should be done using hand tools (or where stones are too large carefully using a toothed bucket excavator). The stones will be lifted individually to allow the ecologist to search for GCN.

Topsoil Strip

5.4.3 The majority of the site comprises semi-improved grassland which will require preparation for construction. Following the pre-commencement survey soil stripping works will progress in a systematic fashion from south to north within the application area. This will encourage any potential amphibians / fauna present to disperse to grassland to the north. An ecologist will be present during soil stripping works to ensure the working procedure is adhered to and to relocate any amphibians / fauna encountered during works. Soil stripping will only be undertaken during the active season, between March to October and in suitable weather conditions when GCN are likely to be active.

5.5 Precautionary Measures during Construction

Given that GCN are unlikely to visit the site, simple precautions will be sufficient to ensure that they do not exploit more attractive or useful habitat created there during development - such as piles of materials, excavations or sheltered areas beneath temporary structures such as cabins. Sympathetic working practices include:

- Avoid creating potential refuges;
- Amphibians will utilise stacked materials such as wood, stone, boards or metal sheets as refuges. Keep the site tidy and stored materials off the ground – for example on pallets where possible;
- Should it be necessary to store materials such as topsoil on site then the stockpile should be smoothed to prevent access by amphibians into potential cavities;
- Waste materials should be removed from site immediately or placed in skips;

- No piles of rubbish or waste should be allowed to remain on site as this could create a potential shelter for amphibians which could then be disturbed in their removal;
- Amphibians like to hide under refuges such as those discussed above. Staff should simply demonstrate awareness when working and moving materials. Should an animal other than a GCN be found it should be gently moved, for example in a clean bucket, to a suitable location within habitat well away from the working area.

5.5.1 This is a precautionary measure only, and the chance of newts moving to shelter under stored materials is considered to be very low.

5.6 Encountering Newts

5.6.1 Should a newt be encountered at any stage of the works all work should temporarily cease. If the ecologist is present then the animal will either be left in situ if it is safe and suitable habitat remains, or it will be moved to a place of safety within suitable terrestrial habitat outside of the site.

5.6.2 If there is no ecologist present then work should cease and an ecologist should be immediately contacted to confirm the identity of the animal and to advise on what further action should be taken.

5.6.3 If the newt is a GCN then the ecologist will liaise as appropriate with the local planning authority ecologist and Natural England. It is likely that the works would remain on hold until a Natural England EPS mitigation licence can be obtained to allow the work to proceed lawfully.

References

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Appendices

Appendix 1

HSI Assessment Methodology

The HSI assessment methodology (Oldham et al, 2000) provides a measure of the suitability of a waterbody for supporting great crested newts by assigning an overall score of between 0 and 1, which is based on ten key criteria or Suitability Indices (SI) as follows:

- SI_1 Geographic location
- SI_2 Pond area
- SI_3 Pond drying
- SI_4 Water quality
- SI_5 Shade
- SI_6 Presence of water-fowl
- SI_7 Presence of fish
- SI_8 Number of local ponds
- SI_9 Terrestrial habitat quality
- SI_{10} Plant coverage

The overall Habitat Suitability index is calculated by multiplying the individual indices together and rasing the total to the power of 0.1. This give a theoretical HSI score of between 0.01 and 1. Values close to 0 indicate unsuitable habitat while 1 represents optimal habitat. In general, ponds with a higher score are more likely to support GCN than those with lower score. Research has shown that there is a positive correlation between HSI scores and the number of GCN observed in a pond. The quantitative assessment provided by the HSI score is translated into a more qualitative term for suitability for GCN according to the scale outlined in Table A1.2 below.

Table A1.2: HSI scoring criteria

HSI score	Habitat suitability
<0.5	**Poor**
0.5 - 0.59	**Below Average**
0.6 – 0.69	**Average**
0.7 – 0.79	**Good**
>0.8	**Excellent**