# CALDECOTE FARM

NEWPORT PAGNELL · MILTON KEYNES

**APPENDIX 6**

*ENVIRONMENTAL STATEMENT*

## ECOLOGY AND NATURE CONSERVATION

## APPENDIX 6.5 GCN REPORT

newlands developments

Newlands Developments

## Land at Caldecote Farm, Newport Pagnell

# Appendix 6.5 Great Crested Newt Report

July 2021

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| | | | | |

## CONTENTS



## TABLES



## APPENDIX



## FIGURES

# 1.0 INTRODUCTION

1.1 This report has been produced by FPCR Environment & Design Ltd. on behalf of Newlands Developments and details the results of great crested newt *Triturus cristatus* (GCN) surveys undertaken at a site known as 'Land at Caldecote Farm, Newport Pagnell'.

1.2 This report should be read in conjunction with the Environmental Statement[1] and associated protected species reports produced for the site.

## Site Location and Context

1.3 The site is located between Milton Keynes and Newport Pagnell in Buckinghamshire, central grid reference SP 8757 4228 (see Figure 1). The M1 motorway corridor forms the boundary to the west of the site, whilst Monks Way (A422) bounds the north / north-west boundary and Willen Road is located immediately to the east. Surrounding land use in the wider area consists of existing residential areas of Newport Pagnell to the north and Tongwell Industrial Estate and adjacent residential areas, comprising Willen and Blakelands to the west of the M1. To the east is an active sand and gravel extraction site and further afield consists of extensive open farmland and habitats associated with the River Ouzel.

1.4 The site comprises a field compartment which has been partially restored to agriculture following cessation of historic extraction activities. The site currently consists of species-poor grassland interspersed with tall ruderal species and scattered scrub. Remnant sand and gravel deposits, shallow ephemeral pools and bunds in varying stages of succession, between bare ground and poor semi-improved grassland, are located at the eastern periphery of the grassland. The site is bound by native hedgerows to the east, west and part of the north boundary, which widen to highway planting where associated with the A422 at the north-west and Willen Road to the south. The eastern-most extent of the site is formed by a short section of highway (Willen Road) and a section of adjoining arable field compartment.

1.4.1. The site was originally subject to an extended Phase 1 Habitat survey in April 2016, which was subsequently updated on the 29th May 2018 and 21st January 2021, to confirm that there had been no significant alterations in the nature or extent of habitats or of their suitability for faunal species.

1.4.2. Comments received from the Countryside Officer at Milton Keynes Council (Offer's Committee Report, dated 10th June 2020, planning reference 19/02402/FUL)[2], in regard to GCN surveys undertaken on-site as part of a previous planning application, are detailed below.

*"Great Crested Newt Report*

*The HSI assessment of relevant waterbodies was carried out in April 2016 (although the Ecology Report states that the assessment was carried out between March and May 2014). This initial survey identified 11 water bodies on site, these have since been removed as part of ongoing management of the site. Aquatic surveys were carried out in 2016 of the on-site waterbodies, no GCN were recorded. The surveys are no out-of-date, but given the removal of the waterbodies on*

1 FPCR, 2021 Land at Caldecote Farm, Newport Pagnell Environmental Statement

2 Milton Keynes Council 10.06.2020 – CF – Officers Committee Report.pdf Available at: https://publicaccess2.milton-keynes.gov.uk/online-applications/applicationDetails.do?keyVal=PY2TIKKW0K600&activeTab=summary

*site and the availability of the GCN district licence as an option for the applicant, no further surveys are required at this stage".*

1.5 Taking note of these comments, no further surveys in regard to GCN are recommended to inform this application. This is based upon a number of factors which are discussed further within this report.

### Development Proposals

1.6 The development proposals entail the erection of two storage and distribution units (Class B8) with associated access, car parking, servicing, landscaping, earthworks and drainage.

## 2.0 LEGISLATION

2.1 GCN are afforded full legal protection under the Conservation of Habitats and Species Regulations 2017 (as amended)[3] and the Wildlife & Countryside Act 1981 (as amended)[4].

2.2 Under Regulation 41 of the Conservation of Habitats and Species Regulations 2017 (as amended) it is illegal to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species (EPS),
- Deliberately disturb wild animals of an EPS (affecting ability to survive, breed or rear young) – disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young,
- Deliberately disturb wild animals of an EPS (impairing ability to migrate or hibernate) disturbance of animals includes in particular any disturbance which is likely to impair their ability in the case of hibernating or migratory species to hibernate or migrate,
- Deliberately disturb wild animals of an EPS (affecting local distribution and abundance) – disturbance of animals includes in particular any disturbance which is likely to affect significantly the local distribution or abundance of the species to which they belong,
- Deliberately disturb wild animals of an EPS (whilst occupying a structure of place used for shelter or protection) – intentionally or recklessly disturb any wild animal while it is occupying a structure or place which it uses for shelter or protection,
- Damage or destroy a breeding site or resting place of a wild animal an EPS.

2.3 Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to:

- Recklessly or intentionally kill, injures or take any wild animals included in Schedule 5.
- Recklessly or intentionally damage or destroy, or obstruct access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection,
- Recklessly or intentionally disturb any such animal while it is occupying a structure or place which it uses for shelter or protection.

[3] The Conservation of Habitats and Species Regulations 2017 – Statutory Instrument 2017 No.1012. [Online]. London: HMSO. Available at: http:// http://www.legislation.gov.uk/uksi/2017/1012/pdfs/uksiem_20171012_en.pdf [Accessed 23/01/2018].
[4] The Wildlife and Countryside Act 1981 (as amended). [Online]. London:HMSO Available at http://www.legislation.gov.uk/ukpga/1981/69 [Accessed 02/12/2014]

# 3.0 METHODOLOGY

## Desk Study

3.1 As part of the desk study the Buckinghamshire & Milton Keynes Environmental Records Centre (BMERC) was consulted in June 2016, and January 2021, for information on existing ecological data regarding existing great crested newt records within a 1km radius of the site.

## Field Survey

### Habitat Assessment

3.2 The site was subject to a pre-survey habitat assessment on 13th April 2016, prior to any surveys being undertaken, to assess the suitability of the habitats present to support GCN. Consideration was afforded to the present of any on-site waterbodies, potential foraging and sheltering habitat and connectivity to surrounding suitable habitat.

3.3 The assessment was subsequently updated in May 2018, and on the 21st January 2021, to confirm there had been no significant alterations in the nature or extent of habitats or of their suitability for GCN.

### Habitat Suitability Index (HSI)

3.4 Any waterbodies found within the site were noted and described and their suitability to support GCN noted. Where access was granted, ponds within a 500m radius of the site were also surveyed and assessed for their suitability.

3.5 An assessment was made to determine the suitability of each pond for GCNs using the HSI methodology, as developed by Oldham et al (2000)[5]. The HSI provides a measure of the likely suitability of a water body for supporting newts. This methodology assesses ponds against ten pre-determined criteria, producing a score that indicates suitability for GCN occupation. Generally, water bodies with a higher score are more likely to support GCN than those with a lower score and there is a positive correlation between HSI scores and water bodies with newts recorded. Ten separate attributes are assessed for each pond:

- Location (Area A, B or C within the UK);
- Pond Area (size in metres²);
- Permanence (how many times it may dry out in a decade);
- Water quality (invertebrate diversity);
- Shade (percentage of a water bodies perimeter shaded);
- Fowl (impact of waterfowl if present);
- Fish (impact of fish if present);
- Pond Count (density of ponds within 1km)
- Terrestrial Habitat (quality of surrounding habitat); and

[5] Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the Suitability of Habitat for the GCN* (*Triturus cristatus*). Herpetological Journal 10 (4), 143-155

- Macrophytes (percentage of surface area occupied).

3.6 A score is assigned according to the most appropriate criteria level set within each attribute and total score calculated of between 0 and 1. Pond suitability is then determined according to the following scale.

**Table 1: HSI Score Scale**

| HSI score | Pond Suitability |
|---|---|
| <0.5 | Poor |
| 0.5 - 0.59 | Below average |
| 0.6 – 0.69 | Average |
| 0.7 – 0.79 | Good |
| >0.8 | Excellent |

3.7 Initial HSI assessments were undertaken during April 2016 which identified the presence of eleven on-site waterbodies (P1 to P11) and a further three waterbodies (P12 to P15) located within 500m of the site boundary.

3.8 Following this assessment, the off-site ponds were ruled out as being unsuitable for GCN and were not considered further. Details are provided in the below sections.

### Aquatic Survey

3.9 All 11 on-site ponds were surveyed following the methods recommended by Natural England as detailed in the *Great Crested Newt Mitigation Guidelines* (English Nature, 2001). To determine the presence or absence of GCNs, four individual survey visits were performed. Appropriately licensed ecologists from FPCR completed all of these surveys during suitable conditions i.e. when the ambient air temperature exceeded 5$^{o}$C, with little / no wind and no rain. Survey conditions for each occasion are detailed in Table 2.

**Table 2: Survey Conditions**

| Survey Date | Turbidity | Wind | Rain | Evening temp (°C) | | Morning temp (°C) | |
|---|---|---|---|---|---|---|---|
| | | | | Air pm | Water pm | Air am | Water am |
| 04/05/2016 | 3 | Light breeze | No rain | 13 | 12 | 13 | 12 |
| 17/05/2016 | 2 | Light breeze | No rain | 16 | 18 | 12 | 12 |
| 23/05/2016 | 3 | No wind | Light rain | 13 | 16 | 13 | 14 |
| 31/05/2016 | 2 | Light breeze | Drizzle | 15 | 18 | 11 | 12 |

3.10 On each survey occasion, three of a possible four different techniques (egg search, sweep net, bottle-trap and torch) were used where possible. A summary of each is provided below:

Bottle Trapping

3.11 Bottle traps were set within the waterbody in the evening at densities of one trap per two metres of shoreline (where feasible) and left overnight for inspection in the morning. Traps were partially submerged in the water leaving an air bubble in the bottle and secured by a cane marked with a high visibility tape to ensure relocation the following day. Care was taken to ensure that trapping did not occur during excessively warm weather, when the temperature inside the trap could rise considerably, reducing oxygen levels and potentially suffocating the newts.

Sweep Netting

3.12 Long handled sweep-nets were used to sample the margins of the pond for GCN, with approximately 15 minutes of netting per 50m of shoreline.

Torch Light Survey

3.13 Torching involved searching the waterbody after dusk using high-powered torches to scan the margins and potential display areas for newts. The perimeter of the pond was walked slowly to record any newts observed. Torch surveys are unsuitable within heavily vegetated and / or turbid ponds or after periods of heavy rain as visibility is diminished.

Egg Searching

3.14 Newts lay single eggs on leaves of aquatic plants or other suitable pliable material, after which the material is folded over the egg to protect it. GCN eggs can be distinguished from those of the other newts by their size, shape and colour. Submerged vegetation was examined for newt eggs and folded leaves gently opened to check for eggs. If a GCN egg had been identified, no further leaves would have been examined thereby minimising any further potential disturbance.

**Population size class assessment**

3.15 If a population of GCN is confirmed, a population size class assessment is completed in accordance with Natural England's standard guidance. The population size class assessment is based on the highest maximum count of GCN observed on any one survey occasion (Table 3).

**Table 3: Determining Population Size Class (GCN Mitigation Guidelines, 2001)**

| Population size class | Highest number of observations for one night |
|---|---|
| Low population | 0-10 animals |
| Medium population | 11-100 animals |
| High population | >101 animals |

## Limitations

3.16 The aquatic surveys were constrained by the following factors:

- Water levels in pond P2 were too shallow to effectively bottle trap during the final three survey occasions and therefore sweep netting was undertaken instead.

- On the first survey occasion, torch light survey could not be completed on pond P4 due to high turbidity. In addition, water levels were too low in this pond too effectively bottle trap during the second survey occasion. Sweep netting was therefore conducted on pond P4 on the first and second survey occasions.

# 4.0 RESULTS

## Desk Study

4.1 The locations of the records referred to in the following section are illustrated in Figure 6.1 of the accompanying ES chapter.

4.2 In summary, no sites were identified within the search area designated for their populations of GCN. A total of five GCN records (ranging from 2003 to 2020) were located within 1km south of the site, however all were separated from the site by barriers to dispersal, the closest one located approximately 600m south (SP 878 413).

## Field Survey (2016)

### Waterbody Descriptions

4.3 During 2016, a total of 14 ponds were located within the application boundary and off-site within 500m of the site; Ponds P1 – P14 (Figure 1). A description of each waterbody is provided below.

Waterbody P1-P3 (photograph 1-3)

4.4 P1 to P3 comprised medium sized, shallow ephemeral pools formed within sandy, bare ground. The surrounding habitat was dominated by a mix of bare ground and semi-improved grassland. Given the ephemeral nature of the pools, aquatic and marginal vegetation was limited, although localised areas of common reedmace *Typha latifolia* and yellow iris *Iris pseudacorus* were present.

**Photograph 1: Waterbody P1**

**Photograph 2: Waterbody P2**

**Photograph 3: Waterbody P3**

Waterbodies P4-P11 (Photographs 4-11)

4.5 P4 to P11 included a series of inundated test pits dug into grassland habitat within the western section of the site. All were of a similar size, being approximately 3m x 2m, with steep sided banks and were dug into the sandy soil. Aquatic vegetation was limited across the majority of ponds and where it was present; it included a blanket pond weed. Given the sandy nature of soils, the ponds were likely to be of an ephemeral nature, drying during periods of extended warm weather.

**Photograph 4: Waterbody P4**

**Photograph 5: Waterbody P5**

**Photograph 6: Waterbody P6**

**Photograph 7: Waterbody P7**

**Photograph 8: Waterbody P8**

**Photograph 9: Waterbody P9**

**Photograph 10: Waterbody P10**

**Photograph 11: Wtaerbody P11**

Off-site Waterbodies (Photographs 12-14)

4.6 P12 was a large, narrow garden pond that ran along a driveway towards the associated dwelling. Bankside vegetation included common reedmace and yellow iris. Surrounding terrestrial habitat largely included amenity grassland with a dense woodland copse forming a central island. A

collection of ornamental goldfish were observed within the pond, which was located 250m from the application site, at its closest point.

**Photograph 12: Waterbody P12**

4.7 Pond 13 comprised a lined garden pond with paving stones making up its banks. Surrounding habitat included ornamental garden planting and further areas of paving with no aquatic or marginal vegetation visible at the time of the survey. The pond was located 320m from the application site, at its closest point.

**Photograph 13: Waterbody P13**

4.8 Pond 14 was a small garden pond with a lined base. The steep banks were devoid of marginal vegetation with amenity grassland surrounding the pond, which was located 330m from the application site at its closest point.

**Photograph 14: Waterbody P14**

### Terrestrial Habitat

4.9 Suitable terrestrial habitat for GCN within the site was limited. The large extent of poor semi-improved grassland was considered to be unsuitable for GCN given that it is subject to regular ploughing as a form of sward management and was without any habitat structure e.g. hedgerows that could be utilised for dispersal or sheltering. The arable habitat east of Willen Road was considered to be completely unsuitable for GCN given its intensive management. The remnant quarry habitats were of greater suitability providing potential areas of rest and shelter, however, these areas were limited in their overall extent, and when considering the isolation of the site, a result of the surrounding road network which is considered to represent a major barrier to dispersal of GCN, they were considered to be completely unsuitable.

**Photograph 15: Semi-improved grassland**

**Photograph 16: Semi-improved grassland**

**Photograph 17: Bare ground habitats**

**Photograph 18: Rubble piles**

### Habitat Suitability Index (HSI) Assessment

4.10 Table 4 provides a summary of the HSI assessment for each of the waterbodies. Detailed HSI results are provided in Appendix A.

**Table 4: HSI results for Waterbodies P1-P14**

| Pond | HSI Score | Predicted Presence | HSI Category |
|---|---|---|---|
| 1 | 0.84 | 93% | Excellent |
| 2 | 0.66 | 55% | Average |
| 3 | 0.81 | 93% | Excellent |
| 4 | 0.61 | 55% | Average |
| 5 | 0.63 | 55% | Average |

| | | | |
|---|---|---|---|
| 6 | 0.66 | 55% | Average |
| 7 | 0.59 | 20% | Below Average |
| 8 | 0.63 | 55% | Average |
| 9 | 0.64 | 55% | Average |
| 10 | 0.64 | 55% | Average |
| 11 | 0.67 | 55% | Average |
| 12 | 0.50 | 0.2% | Below Average |
| 13 | 0.38 | 0.03% | Poor |
| 14 | 0.37 | 0.03% | Poor |

### Aquatic Surveys

4.11 Following completion of the initial habitat assessment and HSI of all ponds, off-site ponds P12-P14 were ruled out from further assessment based on the following;

- Poor habitat suitability; P12 contained a collection of ornamental goldfish which reduce pond suitability. Fish can play a major role in local GCN population extinction, as many predatory fish (including goldfish) can prey on GCN larvae[6]. P13 and P14, did not contain fish, however both were found to contain little to none aquatic vegetation suitable as egg-laying habitat and were surrounded by poor terrestrial habitat, limiting opportunities for over-wintering.
- Distance from application site/poor habitat connectivity: P12 was located approximately 250m from the application site, whilst P13 and P14 were located 320m and 330m away, respectively. Most GCN are thought to remain within 50 - 100m of a breeding pond, and it is generally accepted that 250m is towards the upper limit of normal range of dispersal for this species[7]. Intervening habitats were of limited suitability (hardstanding, buildings, gardens and arable field) with features which could act as connective habitat corridors absent.
- Isolation and barriers to dispersal – Willen Road, which lies between the off-site ponds and application site is considered to be a barrier to the dispersal of GCN.

4.12 Aquatic surveys were undertaken on on-site ponds (P1 to P11) in 2016, during which time no great crested newts, or other amphibians, were recorded.

## Field Survey (2018-2021)

### Habitat Assessment

4.13 Habitat assessment undertaken in May 2018, and January 2021, found terrestrial habitats to be largely unchanged since the original survey. The survey in May 2018 found that waterbodies P4 to P11 had been removed from site in-line with on-going management, which was considered to significantly reduce the potential suitability of the site for GCN.

6 English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature, Peterborough
7 Cresswell, W., Whitworth, R. 2004. *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus* English Nature Research Reports, Peterborough

4.14 Review of aerial imagery[8], in March 2021, also indicated that P14 had been removed and no longer exists.

## 5.0 DISCUSSION

5.1 The surveys carried out in 2016 confirmed the likely absence of great crested newts, and other amphibian species, from the application site.

5.2 The update walkover survey undertaken in May 2018 found that waterbodies P4 to P11 had been removed from site in-line with on-going management, however, as no GCN were recorded within these waterbodies previously this was not considered to form a constraint. No other permanent waterbodies were located on-site. Some ephemeral pools do still remain, although these dry out periodically and GCN were found to be absent when they were surveyed in 2016. As the site is isolated from surrounding habitats, by the network of main roads, the recruitment of GCN, and other amphibians, to these waterbodies is considered extremely unlikely and their presence does not therefore pose a constraint to the proposals. No further survey or mitigation is recommended in regards to these waterbodies.

5.3 A single waterbody (P12) was located within 250m of the site boundary, with a further waterbody (P13) located within 320m (P14 now removed). Both waterbodies have limited intrinsic value to support GCN (as described above), however, in the unlikely event that GCN are present within these waterbodies, it is considered extremely unlikely that they would disperse into application site given the intervening distances, poor habitat connectivity and presence of barriers to dispersal. The presence of these waterbodies does not pose a constraint to the proposals no further surveys or mitigation is recommended.

5.4 In summary, the on-site habitats provide extremely limited potential to support GCN, which is further reduced by the availability of suitable off-site breeding ponds and absence of opportunities of recruiting GCN populations into on-site habitats. The 2016 survey results are therefore considered to provide an accurate account of GCN 'activity' within the site and no further actions in regards to this species are considered necessary.

[8] Google Maps. 2021. (satellite). [online]. [Accessed 24.03.2021]. Available at: https://www.google.co.uk/maps/place/Newport+Pagnell/@52.0729781,-0.7165376,72m/data=!3m1!1e3!4m5!3m4!1s0x487700acb2987585:0xa74e57faa3df66c0!8m2!3d52.084585!4d-0.734583

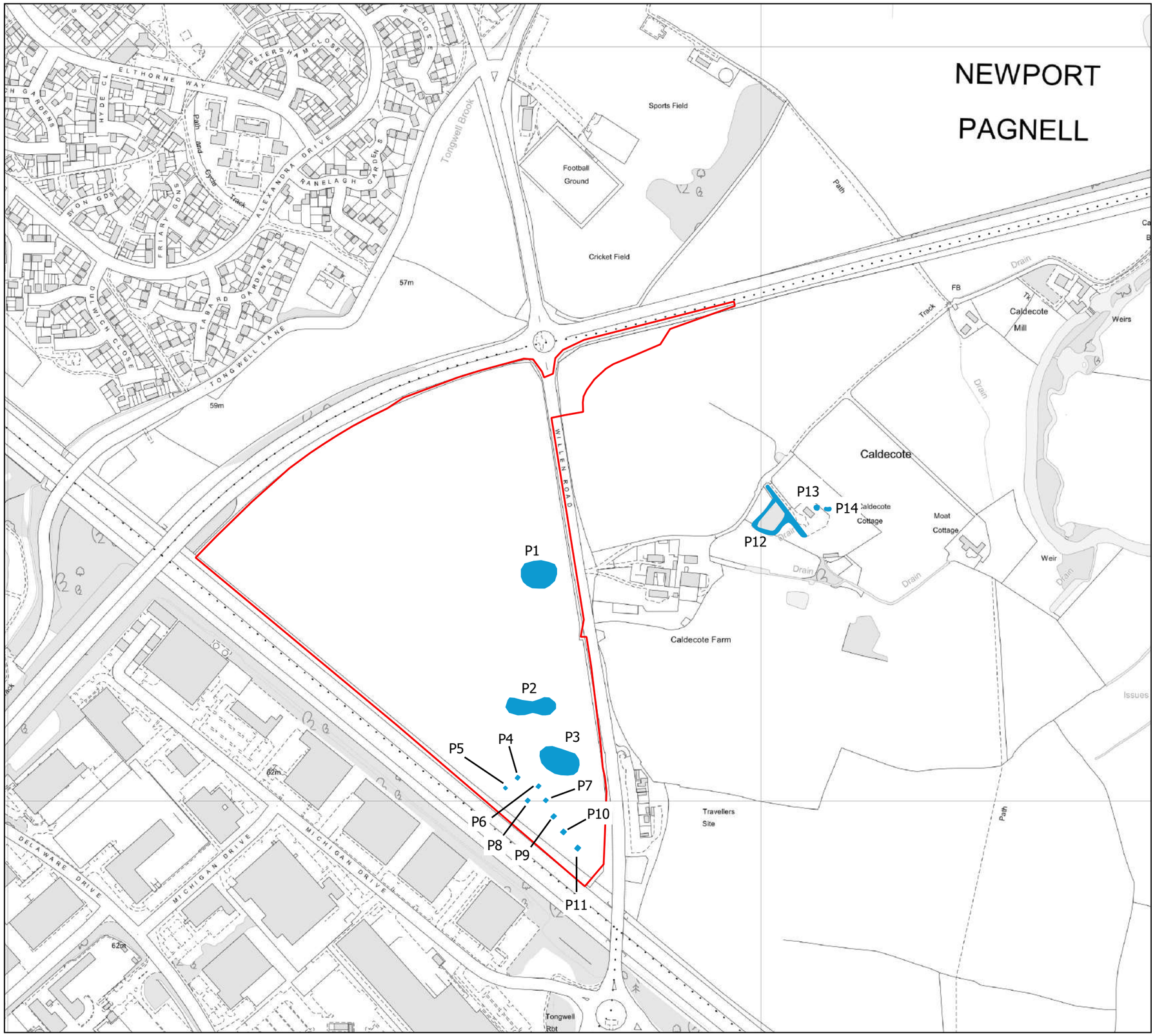
## Appendix A (GCN Report): Habitat Suitability Index Assessment

| Pond | SI -1 | | SI - 2 | | SI -3 | | SI -4 | | SI -5 | | SI -6 | | SI -7 | | SI -8 | | SI -9 | | SI -10 | | HSI score | Pond suitability | Predicted presence |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Geographical location | | Gond area | | Pond drying | | Water quality | | Shade (perimeter) | | Fowl | | Fish | | Ponds | | Terrestrial habitat | | Macrophytes | | | | |
| | Field result (A,B,C) | SI score | Field result (m2) | SI score | Field result | SI score | Field result | SI score | Field result (% cover) | SI score | Field result | SI score | Field result | SI score | Field result | SI score | Field result | SI score | Field result | SI score | | | |
| 1 | A | 1 | 600 | 1 | Sometimes | 0.5 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Good | 1 | 20 | 0.5 | 0.84 | Excellent | 93% |
| 2 | A | 1 | 144 | 0.2 | Sometimes | 0.5 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Moderate | 0.7 | 5 | 0.4 | 0.66 | Average | 55% |
| 3 | A | 1 | 800 | 1 | Sometimes | 0.5 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Good | 1 | 5 | 0.4 | 0.81 | Excellent | 93% |
| 4 | A | 1 | 6 | 0.1 | Rarely | 1 | Moderate | 0.7 | 0 | 1 | Minor | 0.7 | Absent | 1 | 13 | 1 | Good | 1 | 0 | 0.3 | 0.61 | Average | 55% |
| 5 | A | 1 | 6 | 0.1 | Rarely | 1 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Good | 1 | 0 | 0.3 | 0.63 | Average | 55% |
| 6 | A | 1 | 6 | 0.1 | Rarely | 1 | Good | 1 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Good | 1 | 2 | 0.3 | 0.66 | Average | 55% |
| 7 | A | 1 | 8 | 0.1 | Sometimes | 0.5 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Good | 1 | 2 | 0.3 | 0.59 | Below Average | 20% |
| 8 | A | 1 | 6 | 0.1 | Rarely | 1 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Good | 1 | 0 | 0.3 | 0.63 | Average | 55% |
| 9 | A | 1 | 6 | 0.1 | Rarely | 1 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Good | 1 | 5 | 0.4 | 0.64 | Average | 55% |
| 10 | A | 1 | 6 | 0.1 | Rarely | 1 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Good | 1 | 5 | 0.4 | 0.64 | Average | 55% |
| 11 | A | 1 | 4 | 0.1 | Rarely | 1 | Good | 1 | 0 | 1 | Absent | 1 | Absent | 1 | 13 | 1 | Good | 1 | 5 | 0.4 | 0.67 | Average | 55% |
| 12 | A | 1 | 800 | 0.98 | Never | 0.9 | Moderate | 0.7 | 30 | 1 | Minor | 0.7 | Major | 0.01 | 13 | 1 | Moderate | 0.7 | 10 | 0.4 | 0.50 | Below Average | 0.2% |
| 13 | A | 1 | 36 | 0.1 | Never | 0.9 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Possible | 0.7 | 13 | 1 | Bad | 0.01 | 0 | 0.3 | 0.38 | Poor | 0.03% |
| 14 | A | 1 | 16 | 0.05 | Never | 0.9 | Moderate | 0.7 | 0 | 1 | Absent | 1 | Possible | 0.7 | 13 | 1 | Bad | 0.01 | 5 | 0.4 | 0.37 | Poor | 0.03% |

## Appendix B: GCN Survey Results

| Pond Number | Survey Results | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 04/05/2016 | | 15/05/2016 | | 23/05/2016 | | 31/05/2016 | |
| | Methodology used | Count | Methodology used | Count | Methodology used | Count | Methodology used | Count |
| 1 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 |
| 2 | B,T,E | 0 | N,T,E | 0 | N,T,E | 0 | N,T,E | 0 |
| 3 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 |
| 4 | B,N,E | 0 | N,T,E | 0 | B,T,E | 0 | B,T,E | 0 |
| 5 | B,T,E | 0 | Pond Dry | | B,T,E | 0 | B,T,E | 0 |
| 6 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 |
| 7 | Pond dry | | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 |
| 8 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 |
| 9 | B,T,E | 0 | B,T,E | 0 | Pond dry | | B,T,E | 0 |
| 10 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 | Pond dry | |
| 11 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 | B,T,E | 0 |

(B=Bottle Trapping, T=Torching, N=Netting, E=Egg Search)






## Key

- Site Boundary
- Waterbody with Reference

FPCR Environment and Desgin Ltd, Lockington Hall, Derby, DE74 2RH ▪ t:01509 672 772 ▪ f:01509 674 565 ▪ e: mail@fpcr.co.uk ▪ w: www.fpcr.co.uk ▪
**masterplanning ▪ environmental assessment ▪ landscape design ▪ ecology ▪ architecture ▪ arboriculture ▪**

J:\7200\7252\QGIS\Plans\Phase 1 Plans

client
Newlands Developments

project
Land at Caldecote Farm, Newport Pagnell

drawing title
Waterbody Locations

scale 1:5250 | drawn APR / JAW | issue 24/3/2021

drawing / figure number
**Figure 1**

rev