


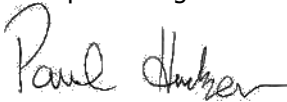


**Ty Fry Farm,  
Loughor, Swansea**

**HSI Assessment  
Letter Style Report**

**November 2020**

## DOCUMENT CONTROL

Ty Fry Farm, Loughor HSI Assessment – Letter Style Report			
Revision	Date	Prepared by	Approved by
1.0	30 <sup>th</sup> November 2020	Rory Jones MCIEEM Senior Ecologist 	Paul Hudson MCIEEM Principal Ecologist 

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## 1. Brief

This report presents the findings of a Habitat Suitability Index (HSI) Assessment of a water body located approximately 450m south-east of land at Ty Fry Farm, Loughor, Swansea, SA4 6SR, within the boundary of Swansea City and County Council (Ordnance Survey Grid Reference of water body centred at SS 57841 97434). The location of the water body in relation to the proposed development site is displayed in Plan 1.

The assessment follows a preliminary ecological appraisal of the proposed development site by Acer Ecology in 2020, which should be read in conjunction with this letter style report (Acer Ecology Ltd., 2020).

## 2. Methodology

The water body was subject to a HSI assessment (Oldham *et al.*, 2000).

As part of the assessment, ponds are scored using 10 suitability indices<sup>1</sup>: Each of these features is awarded a score between 0 and 1, and a final score is calculated, also between 0 and 1 (a higher score representing more optimal conditions for great crested newts). This final score enables the pond to be ranked in terms of its suitability (poor, below average, average, good or excellent) and to estimate the likely presence of great crested newts within the water body.

The HSI assessment is not a substitute for undertaking great crested newt surveys, but can be used to inform the assessed likelihood of presence or absence. It is not sufficiently precise to prove that a higher score confirms presence, or a lower score confirms absence.

A full great crested newt survey was not undertaken, as this was beyond the scope of this assessment.

## 3. Results

### 3.1. HSI Assessment

The HSI assessment of the pond is displayed in the table overleaf.

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<sup>1</sup> The 10 suitability indices are: location, pond area, pond drying, water quality, shade, waterfowl presence, fish presence, number of ponds in the local area, terrestrial habitat, and macrophyte cover.

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Table 1: Water Body HSI Score

<b>Pond Reference</b>	<b>Water Body 1</b>
SI1 Field location	0.50
SI2 Pond area	0.40
SI3 Pond drying	0.50
SI4 Water quality	0.67
SI5 Shade	0.20
SI6 Fowl	0.67
SI7 Fish	1.00
SI8 Ponds	0.10
SI9 Terrestrial habitat	1.00
SI10 Macrophytes	0.70
<b>HSI SCORE:</b>	<b>0.48</b>
<b>Pond Suitability:</b>	<b>Poor</b>

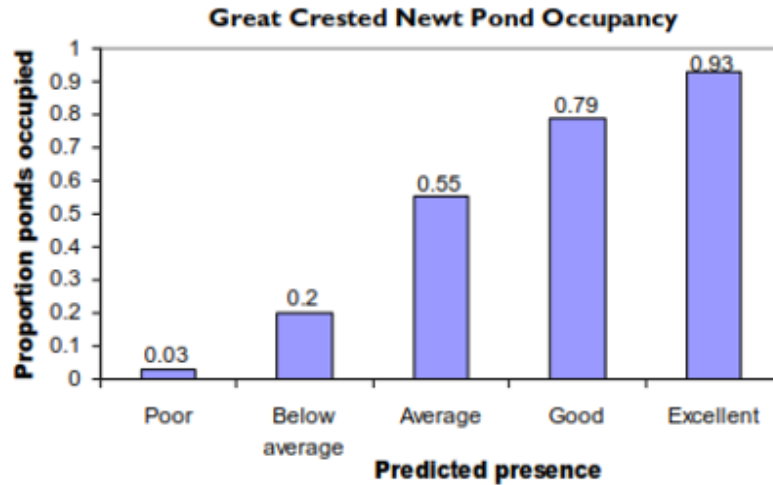
## 4. Discussion

The results of the HSI assessment of the pond indicates that this water body is of 'Poor' suitability for supporting breeding great crested newts. The table overleaf (ARG, 2010) shows that the proportion of great crested newt presence in ponds that scored 'Poor' is 0.03 or 3%. This result was primarily due to the heavily shaded nature of the pond (within woodland) and the lack of additional ecologically connected water bodies within 1km. The water body is therefore anticipated to be highly unsuitable for use by breeding great crested newts.

As a general rule, suitable habitats within 250m of a breeding pond are likely to be used most frequently by great crested newts (English Nature 2001). Although the water body is connected to the proposed development site by a network of suitable terrestrial habitat, it's distance away (over 250m) and the 'Poor' score calculated during the HSI assessment means that the likelihood of great crested newts migrating from this water body onto the proposed development site is expected to be very low. Considered in addition to the lack of great crested newts recording on site while undertaking a reptile survey (Acer Ecology Ltd., 2020), the potential for great crested newts to be adversely impacted by the development is negligible.

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## 5. Recommendations

No impacts to great crested newts are anticipated as a result of the proposed development. No species-specific recommendations are provided and no further surveys are required.

## 6. References and Bibliography

**Acer Ecology Ltd. (2020).** *P1715\_PEA\_Ty Fry Farm, Loughor\_191120.*

**Acer Ecology Ltd. (2020)** *P1715\_Ty Fry Farm, Loughor\_30-11-20.*

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

## Plan 1: Location of Development Site and Water Body

