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Great crested newt eDNA survey for proposed new prison on land adjacent to HMP Garth and HMP Wymott, Leyland, Lancashire

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1	13/06/2022	n/a

1. Introduction

CGO Ecology Ltd (CGO) was instructed by Mace Ltd, on behalf of the Ministry of Justice (MoJ), to conduct great crested newt (GCN, *Triturus cristatus*) surveys on land adjacent to HMPs Garth and Wymott, Leyland, Lancashire. The Ministry of Justice proposes a development as part of its New Prisons Programme on land centred on (SD 502 205). The Local Planning Authority (LPA) is Chorley Council.

Surveys by CGO and subconsultant Haycock and Jay Associates Ltd (HJA) in 2021 using traditional and environmental DNA (eDNA) methods found GCN presence in one pond and one ditch on site, but no GCN evidence within the new prison development area (Gleed-Owen, 2021). The 2021 eDNA survey sampled pond 34 (P34) and ditches 1 and 2 (D1, D2) in the new prison footprint (one sample each). All were negative for GCN eDNA. Ditch 4 (D4) was not surveyed.

It is anticipated that planning consent will include a pre-commencement condition requiring GCN eDNA resurvey of all ponds and ditches in the new prison footprint, to check for continued absence of GCN as shown by the 2021 surveys.

The surveyor and author of this report is Dr Chris Gleed-Owen MCIEEM, Director and Principal Ecologist of CGO, and project lead for the Garth Wymott 2 GCN surveys and other phase 2 ecological surveys.

2. Methodology

P34, D1, D2, and D4 were visited on 23rd May 2022, and each was sampled using GCN eDNA sampling kits provided by SureScreen Scientifics Ltd. A total of eight samples were taken. P34 sampled with one kit. D1 was divided into northeast, north, and south sections, and sampled using three kits. D2 was divided into west and east sections, and sampled with two kits. D4 was divided into north and south sections, and sampled with two kits.

Water samples were taken from 100% of the shore of each waterbody, mixed, subdivided, and preserved as instructed. The samples were stored in a chilled environment, and returned the following day to the SureScreen Scientifics Ltd laboratory in Morley, Derbyshire, for fast-track analysis.

3. Results

In all eight cases, the eDNA assay returned a negative result with no positive replicates (SureScreen Scientifics, 2022). This shows the continued absence of GCN from P34, D1, and D2, and its absence from D4. All samples passed integrity, degradation, and inhibition tests.

4. Conclusions and recommendations

This eDNA survey confirms the likely absence of GCN from the proposed new prison footprint. The sampling was comprehensive, and the results provides a robust conclusion. This report discharges the relevant planning condition, and can be relied upon for one year.

5. References

- Gleed-Owen, C. (2021) *Great crested newt surveys for proposed new prison, bowling club, and boiler house on land adjacent to HMP Garth and HMP Wymott, Leyland*. CGO Ecology Ltd, Christchurch.
- SureScreen Scientifics (2022). *Technical report - Analysis of environmental DNA in pond water for the detection of great crested newts (Triturus cristatus) - E13782*. SureScreen Scientifics Ltd, Morley.

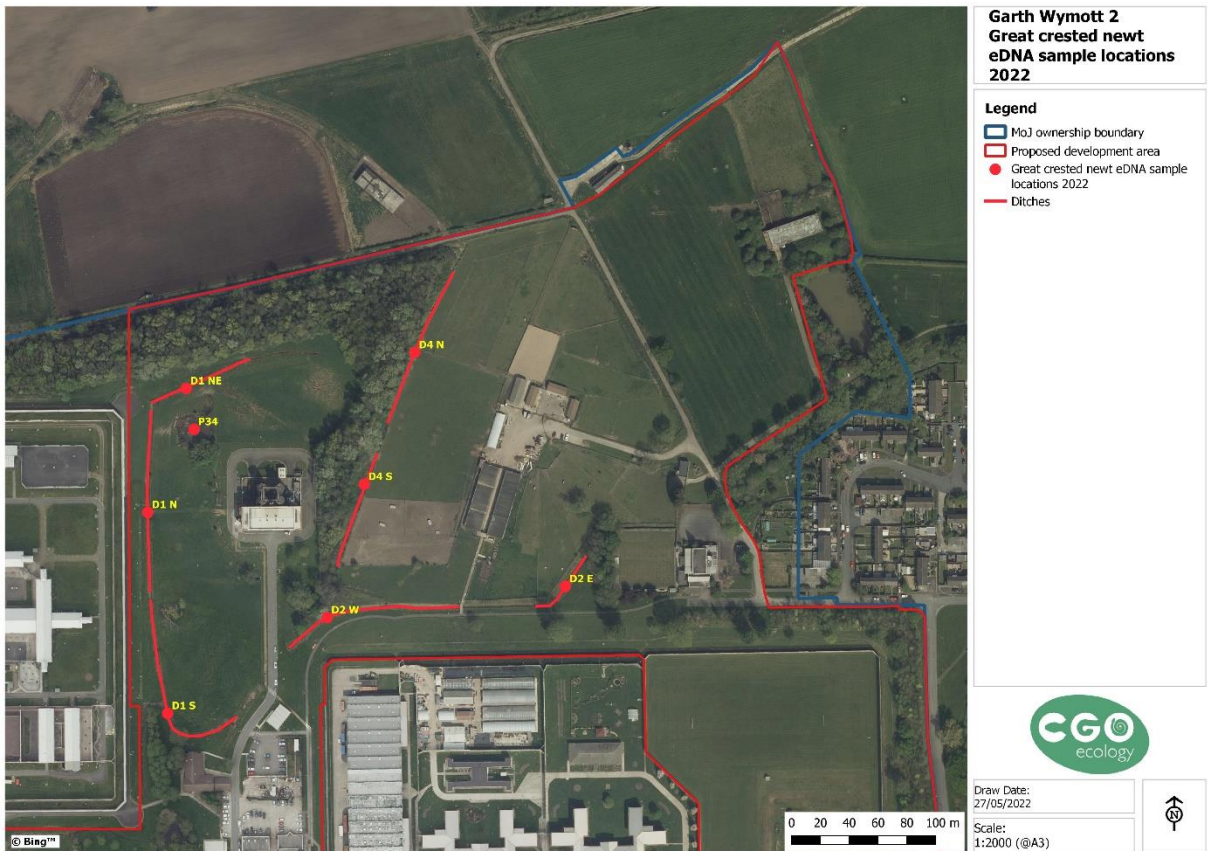


Figure 1 – Locations of eight GCN eDNA samples taken from the proposed new prison footprint in May 2022.