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MAES Y DROELL

GREAT CRESTED NEWT REPORT

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Date: **June 2026**

Report Reference: **JN00777_D04**

CONTENTS

1.	INTRODUCTION	4
2.	STATUS AND LEGISLATION	15
3.	METHODOLOGY	16
4.	RESULTS	19
5.	CONCLUSIONS	20
6.	RECOMMENDATIONS	21
7.	REFERENCES	22

APPENDICES

Appendix 1	Final Landscaping Plan
Appendix 2	Phasing plans 1-4
Appendix 3	Full Survey Results from 2025
Appendix 4	eDNA and Population Size Class Assessment (Ramm Sanderson 2024 / 2025)

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Date	June 2026
Checked	MK
Approved	RS

Amendment History

Version	Date	Modified by	Check / Approved	Reason(s) issue	Status

1. INTRODUCTION

Background

- 1.1 SK Environmental Solutions Limited (SKE) was commissioned by Stephenson Halliday Ltd to undertake great crested newt *Triturus cristatus* (GCN) surveys on 11 ponds located within a former silica sand quarry known as Maes y Droell, in Denbighshire North Wales. This report seeks to update the previous survey efforts undertaken for GCN at the site within the previously worked area of the quarry and disturbed land to the north of the previously worked area.

Aims and Objectives

- 1.2 The purpose of the GCN surveys undertaken at Fron Haul was to quantify:
- Population size class assessment of the GCN present within the ponds within the red line boundary (See Figure 1, below); and
 - Highlight any changes within the current breeding population compared to that of previous years.

Site Description

- 1.3 The quarry is situated between in the village of Graianrhyd, off the B5430 running east from Llanarmon-yn-Ial. It is located approximately 6.6km south-west of the town of Mold. The central grid reference for the site is Ordnance Survey (OS) Grid Reference SJ 21789 56529 (approximate).
- 1.4 A currently inactive silica sand quarry, the site broadly comprises two parcels of land divided by a public bridleway. The main previously quarried area forms the larger, southern parcel of the overall site, whilst the smaller northern parcel comprises an area of previously disturbed ground and includes multiple settling lagoons. The habitats across both parcels are varied, comprising areas of bare ground, colonising vegetation, scrub (particularly gorse), bracken and woodland, as well as ponds / lagoons.
- 1.5 The surrounding landscape is dominated by agricultural grazing pasture with occasional areas of scrub and woodland. A larger quarry (Graig Quarry) is located approximately 1km west of the site. The site is shown on Figure 1, below.



Figure 1 – Site location plan. Scale as a guide only.

Proposals

- 1.6 The proposals are for the resumption of phased mineral extraction from the site, including the previously quarried areas and the previously disturbed area to the north. Access to both parcels will be off an unnamed C road, which runs north from the centre of the village.
- 1.7 Quarrying activity will be phased, alongside detailed phased restoration. Four separate phases are currently planned, running from south to north. A finalised landscape design, including detailed mitigation areas for GCN and reptile species can be seen in Appendix 1 and the detailed phasing plans can be seen in Appendix 2.

Previous Survey Effort

- 1.8 In 2024, eDNA surveys were undertaken by Ramm Sanderson Ecology, subsequently followed in 2025 by great crested newt population size class assessment. Due to access limitations, Ponds 1, 7 and 8 were not subject to population size class surveys in 2025. The results from these surveys concluded that a 'medium' population across the site, with suitable terrestrial habitat providing connectivity between both the northern and southern parcels.

- 1.9 Given the habitat connectivity and lack of barriers to dispersal, it is considered that GCN in both the ponds in the northern and southern parcels form components of a single metapopulation of newts.
- 1.10 During reptile surveys undertaken by SKE in 2025, GCN presence was recorded on each of the seven survey visits under 27 different ACOs (eight in the northern parcel and nineteen in the main southern parcel), the locations of which are shown in Figure 2, below.

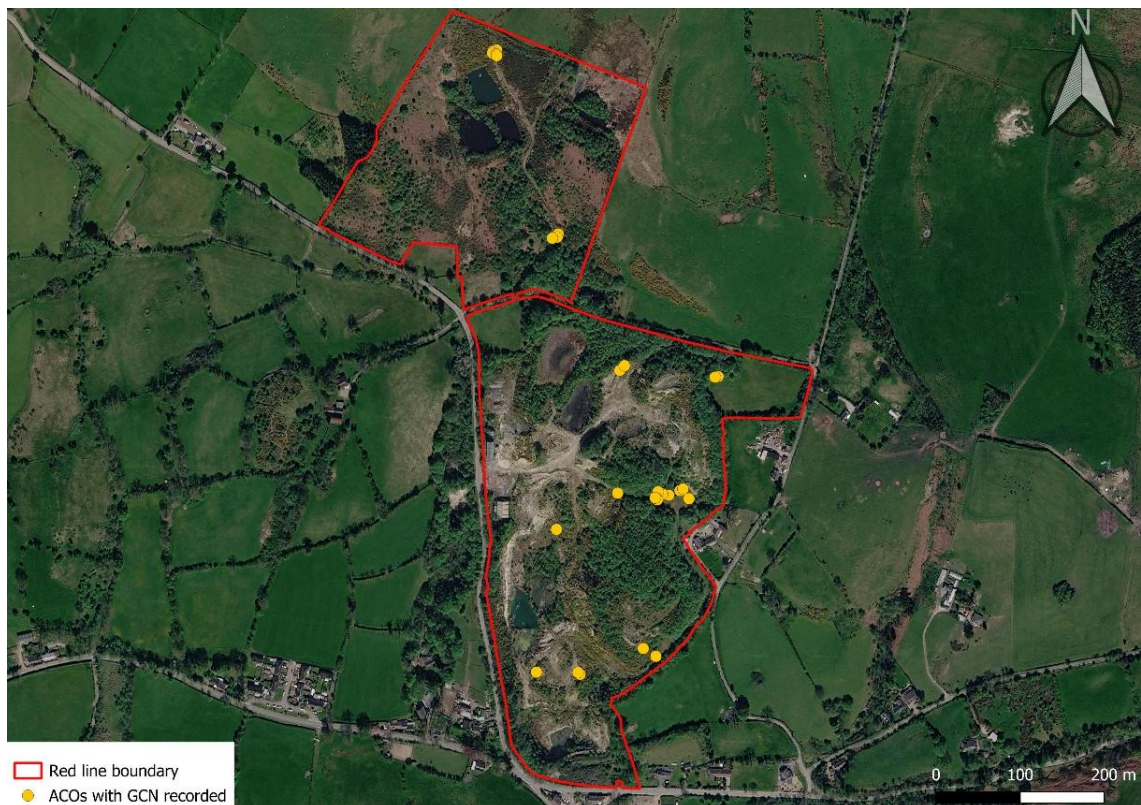


Figure 2 – ACOs with GCN presence recorded. Scale as a guide only.

Pond Description

- 1.11 Previous survey efforts carried out on site have identified eleven ponds present within the site boundary. Ponds identified are shown in Figure 3 and Figure 4, below.



Figure 3 – Pond locations within the northern site boundary. Scale as a guide only.



Figure 4 – Pond locations within the southern site boundary. Scale as a guide only.

1.12 A summary of the pond descriptions is provided in Table 1, below.

Table 1. Summary of pond descriptions.			
Pond Ref	Description	Surveyed in 2026	Photo
P1	An artificial lagoon related to quarry operations with approximate area of 1.4km ² .	Yes	
P2	An artificial lagoon related to quarry operations with approximate area of 1.7km ² .	Yes	

P3	An artificial lagoon related to quarry operations with approximate area of 830m ² .	Yes	
P4	An artificially created pond with approximate area of 390m ² .	Yes	

P5	An artificially created pond with approximate area of 40m ² .	Yes	
P6	A previously worked area that has since flooded with approximate area of 2.3km ² .	Yes	

P7	A previously worked area that has since flooded with approximate area of 600m ² .	Yes	
P8	A previously worked area that has since flooded with approximate area of 1.8km ² .	Yes	

P9	A previously worked area that holds water intermittently. Pond has succeeded into reedbeds.	No – Pond was found to be dry throughout all survey visits.	
P10	A small depression on a former access track to working area. Approximately 60m ² .	No - Pond was found to be dry throughout all survey visits.	

P11	An artificial lagoon related to quarry operations with approximate area of 460m ² .	Yes	
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2. STATUS AND LEGISLATION

2.1 Great crested newts are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 (as amended) and Section 9 of the Wildlife and Countryside Act 1981 (as amended), being listed in Schedule 5 of the act. Under the legislation it is an offence to:

- Intentionally kill, take or injure a great crested newt;
- Damage, destroy or obstruct a place a great crested newt uses for breeding, resting, shelter or protection or to disturb a great crested newt in such a place;
- Possess or control a great crested newt alive or dead, or any part of them, or anything derived from them;
- Sell, offer for sale, advertise for sale or offer to buy a great crested newt, or a part of them or anything derived from them; and
- Deliberately disturb or deliberately take or destroy the eggs of a great crested newt.

Planning Policy

2.2 The Denbighshire County Council (DCC) Appendix 5 of the supplementary planning guidance note 'Conservation and Enhancement of Biodiversity' states the following with respect to great crested newts:

"Avoidance, mitigation and compensation as described in the main document; paragraphs 4.5, 6.3; and Appendix 2 paragraph A2.8 avoidance, mitigation or compensation measures to offset adverse effects on biodiversity should be applied on a step-by-step basis. If developments affect a known breeding or resting site, then appropriate new habitat will have to be created prior to the destruction of the original aquatic or terrestrial habitat under licence from Natural Resources Wales."

2.3 Table 1 within Appendix 5 of Denbighshire County Council highlights that any major development subject to a full or outline planning application, including mineral or waste applications where the development directly affects a known GCN breeding or resting site, requires the site to replace lost habitat or ponds on a *"Like-for-like principle; need to provide replacement habitat capable of its purpose e.g. breeding pond prior to destruction of existing, so that the favourable conservation status of the population is maintained."*

3. METHODOLOGY

Initial Assessment

- 3.1 GCN presence has been confirmed by way of eDNA samples in Ponds P1-P7 during the 2024 survey season and 2025 population size class surveys; therefore these ponds are assumed to be suitable for GCN and were not subject to a formal Habitat Suitability Index (HS) assessment.
- 3.2 P8 – P11 were not subject to an eDNA survey however due to their proximity to ponds P1-P7 and GCN being found during previous survey efforts, it was deemed that a formal HSI assessment was not required.

GCN population size class survey

- 3.3 The ponds were all assessed for the viability of standard great crested newt field survey techniques to be employed.
- 3.4 Where possible, each of the ponds was surveyed using standard survey techniques described in the Great Crested Newt Mitigation Guidelines i.e., bottle trapping, torchlight, egg searches and sweep netting if required (English Nature, 2001).
- 3.5 Where pond conditions allowed, the ponds were surveyed using three different techniques at each pond (as detailed below). At least one Natural Resources Wales licensed surveyor, or accredited agent was present for each survey.
- 3.6 Due to previous survey efforts undertaken in 2024 and 2025, it was deemed appropriate that only three surveys were required for the 2026 population update. This was confirmed with Natural Resources Wales prior to works commencement.
- 3.7 The surveys were undertaken within the optimal survey window and during suitable survey conditions on the following dates listed in Table 2, below.

Table 2. 2026 Survey dates	
Date	Average Overnight Temperature
23/04/2026	7°C
11/05/2026	12°C
09/06/2026	17°C

- 3.8 Following the surveys, the peak count was calculated using maximum number of adult GCN recorded within a given survey night, using a single survey method; counts across all ponds and water features are summed for the purpose of finding the size class estimate as the GCN are considered likely to form a metapopulation at this site.

Torchlight Searches

- 3.9 Torchlight surveys were undertaken from about 30 minutes after dusk, walking each pond perimeter once and recording the total count. The pond surface and pond edge were scanned using high-powered torches (LEDLENSER P18R, 4500 Lumen) and all amphibians seen were identified and recorded.

Bottle Trapping

- 3.10 Bottle traps are placed at approximately 2m intervals around the margins of the pond, depth allowing. Each bottle is attached to a cane and positioned at an angle with an air pocket retained within the bottle. Where traditional stick traps were not viable, floating bottle traps were used to maintain an appropriate survey effort. Traps are set in accordance with the above guidance (English Nature, 2001) and must be collected before 11:00am the following morning. 17 hours is the maximum time between setting and collection, but 12 hours is more typical. Upon collection of the traps, great crested newts and other amphibians are identified, sexed and counted (only being handled with wet gloved hands). They are then immediately returned to the location at which they are caught.

Egg Searching

- 3.11 Great crested newt lay eggs singly, usually on the underside of pliable leaves of submerged plants which they then fold around the egg. The searches involved examining submerged vegetation for folded leaves. Once unfolded, leaves will not re-adhere to eggs and when exposed there is a risk of UV damage and predation. Therefore, once a great crested newt egg was identified and breeding confirmed, no further searches took place within that particular pond.

Limitations

- 3.12 All ponds, with the exception of Pond 5 and Pond 11, had a variety of access constraints; either steep and loose till/spoil heaps from the former quarrying operation or dense gorse encompassing large sections of pond perimeters was present. As such, many pond perimeters could not be accessed in their entirety. Bottle traps and torching methods were therefore only implemented where safe access was possible.

- 3.13 On the final survey undertaken in June 2026, water levels had decreased drastically due to a sustained period of dry weather. As such, the water level had decreased in Pond 4 by approximately 3 ft. It was therefore determined that it was only safe to be torchlight searched.

Personnel

- 3.14 All survey work was led by experienced SK ecologist Joseph Kime named as an accredited agent on GCN license holder Michael Kurs (License number S090783/1). Joseph Kime has surveyed the ponds at numerous nearby quarries for the last six years and was named as an accredited agent on EPSM license S094421/1 for the 2024 translocation at Fron Haul Quarry.
- 3.15 SK Ecologists Bridie Kime, Lilly Swietek and Emma Jennings assisted the surveys, alongside freelance ecologist James Hoskins, all of whom have several seasons of newt surveying experience.

4. RESULTS

GCN Survey Results

4.1 The results of the GCN surveys are summarised in Table 3, below.

Table 3. 2026 GCN Summary Results						
Pond Ref	Adult GCN Count per Date					
	23/04/26		11/05/26		09/06/26	
	Torch	Bottle	Torch	Bottle	Torch	Bottle
P1	-	-	-	-	-	-
P2	-	3	-	1	-	-
P3	3	-	1	-	-	-
P4	-	-	1	-	-	-
P5	-	-	-	1	-	-
P6	10	3	-	-	1	1
P7	-	2	-	-	-	-
P8	3	9	2	1	-	1
P11	6	1	-	-	-	-
Peak Count	Peak Count - 22 recorded on 23/04/2026. Medium population size class estimate					

4.2 During the first survey undertaken on the 23rd of April, great crested newts were found during torchlight surveys within the blanket bog immediately adjacent to Pond 11.

4.3 Egg searches were undertaken where possible across all ponds on site. Pond 7 and Pond 4 were found to have great crested newt eggs present. No eggs were found across the remaining ponds.

4.4 Across all ponds, smooth and palmate newts were recorded on all three visits. Full survey results are provided in Appendix 1.

5. CONCLUSIONS

- 5.1 The 2026 monitoring surveys of the ponds confirmed the presence of a 'medium' population size class estimate (peak count of between 10 and 99) at Maes y Droell, in line with the findings of the 2025 population size class surveys undertaken by Ramm Sanderson Ecology Ltd.
- 5.2 The peak count across the site in 2026 was 22 and was recorded during the first survey visit on 23/04/2026.
- 5.3 The area of blanket bog adjacent to Pond 11 provides suitable habitat for great crested newts during the breeding season. The diverse range of terrestrial habitats present across the site offers ample refuge for great crested newts both during the active and breeding season and the winter hibernation season, as demonstrated during the reptile surveys undertaken by SK Environmental in 2025.
- 5.4 The current proposals, for the recommencement of phased mineral extraction across the site, is considered likely to have a deleterious impact upon the existing population of GCN at the site, without suitable mitigation measures being implemented and long-term management secured.
- 5.5 As such, a site wide GCN strategy for the long-term management of the GCN population present will be required to be agreed with NRW and the local planning authority. Once agreed, this strategy will form the basis of an EPSM derogation / mitigation licence to maintain and enhance the existing GCN population, as part of the proposed extraction activities. Dedicated mitigation zones specifically designed to be beneficial to amphibians and reptiles have been designed into the phased restoration plans, and the final restoration will be aim to create a wildlife site which will be in part (i.e., the dedicated receptor areas) be managed, long term (25 years +) by a suitable organisation such as the Amphibian and Reptile Conservation group (ARC), which will be funded over this period of time by the operator.

6. RECOMMENDATIONS

- 6.1 A long-term, site wide GCN management and monitoring scheme will be produced and agreed with Denbigh LPA and NRW, likely as a condition of planning.
- 6.2 Once agreed the long-term management and monitoring plan will form the basis of the NRW EPSM derogation licence to allow the phased extraction of mineral at Maes y Droll to commence.
- 6.3 The receptor areas marked on the landscaping plans (Appendix 1) will be created in advance of the extraction works starting. The works to create these habitats will need to be undertaken under the EPSM licence, which cannot be applied for until planning permission has been granted.
- 6.4 The EPSM licence will contain information on the following:
- Design of the proposed mitigation areas;
 - Any translocation works that may be required on a phase-by-phase basis;
 - Details on how the mitigation areas will be transferred to the control of a responsible body such as ARC;
 - Details on how funding will be secured long term to ensure that ARC can manage the site for 25 years from the date of the creation of the mitigation areas; and
 - Details of what other biodiversity improvements will be made across the site during the phases and the final proposed site layout and future usage.

7. REFERENCES

Briggs, Lars., Rannap, Rinu., Pappel, Piret., Bibelriether, Florian., & Päivärinta, Alekski (2006). Monitoring methods for the great crested newt *Triturus cristatus*. *Protection of Triturus cristatus in the Eastern Baltic region LIFE2004NAT/EE/000070 Action A, 2*.

Biggs, J., Ewald, N., Valentini, A., Gaboriaud, C., Dejean, T., Griffiths, R. A., ... & Dunn, F. (2015). *Using eDNA to develop a national citizen science-based monitoring programme for the great crested newt (Triturus cristatus)*. Biological conservation, 183, 19-28.

Griffiths, R. A. (2004). Great Crested Newts (*Triturus cristatus*) in Europe. *Species conservation and management*. Oxford University Press, Oxford, 281-291.

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.

Russell L, Starnes T and Wilkinson J. (2017). Spatial Action Plan for Great Crested Newts in

SK Environmental Solutions Ltd. (2025). JN00777_D02_Maes-Y-Droell_Reptile_Report

Ramm Sanderson Ecology Ltd. (2025). RSE_8209 EIA Scoping

Ramm Sanderson Ecology Ltd. (2025). RSE_8209_L2_V1