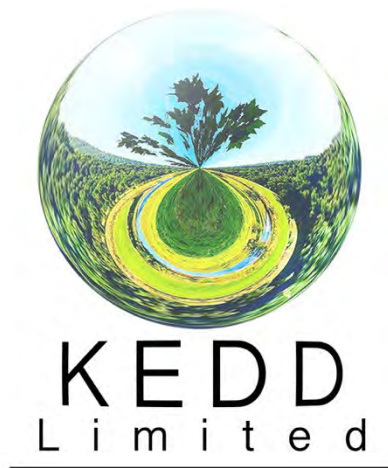




GCN Conservation Plan

For

Ballswood Quarry, Gegin Lane, Llay, Wrexham LL12 0NU

In respect of Condition 26 of Planning Permission ref. P/2022/0448

***Extension to the Extraction Areas within the Existing Permitted
Quarry Boundary***

On behalf of

Cheshire and North Wales Sand and Gravel Ltd

Report Ref – KD.BAL.ER.002

November 2022

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Appendix A – Decision Notice (P20220448)

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Appendix D – eDNA Survey Report

Revision	Author	Checked by	Date
V1	SP	RS	November 2022

1.0 INTRODUCTION

1.1 Kedd Limited have been commissioned to produce a Great Crested Newt (GCN) (*Triturus cristatus*) Conservation Plan in order to discharge Planning Condition 26 of Planning Permission Ref: P/2022/0448 for Ballswood Quarry. Please see the Decision Notice attached at Appendix A.

1.2 Condition 26 states:

'No development shall commence until a Great Crested Newt Conservation Plan covering operation and post-operation has been submitted to and approved in writing by the Mineral Planning Authority. The Conservation Plan shall include, though not necessarily be limited to, the following:

- A. Details of protective measures to be taken to minimise the impacts during operation.*
- B. Details of timing/phasing and duration of activities.*
- C. Submission of a long-term site management plan that includes:*
- D. defined aims and objectives;*
- E. habitat management prescriptions;*
- F. contingency measures if fish or invasive non-native species (INNS) are detected;*
- G. proposals that are capable of being implemented in the event of failure to undertake or to appropriately implement identified or contingency actions; site liaison and wardening;*
- H. surveillance based on the methodology of results reported through the online Wales GCN Monitoring Scheme;*
- I. licensing requirements for undertaking habitat management and surveillance;*
- J. current and any proposed changes to tenure of the compensation area;*

K. persons or bodies responsible for undertaking management and surveillance together with required skills and competencies;

L. reporting requirements; and

M. proposed dates for updating or revising the management plan.

N. Reporting of the results of Ecological Compliance Audits.

O. Details of measures to prevent or reduce incidental capture, injury or killing.

The Conservation Plan shall be carried out in accordance with the approved details for the life of the development’.

Site Location and Description

- 1.3 Ballswood Quarry is located at Gegin Lane, Wrexham, LL12 ONU, and is one of two active sand and gravel quarries in the County Borough of Wrexham. Ballswood Quarry is operated by Cheshire and North Wales Sand and Gravel Ltd.
- 1.4 The site is comprised of one large arable field which is currently in use for agricultural purposes. There are a number of scattered trees located on the boundary of the site between the extension area and the existing Ballswood quarry.

Development Proposals

- 1.5 The development involves soil stripping, mineral extraction and restoration of Area A – see Drawing ref. KD.BLWQ.2.D.007A (Appendix B). Access to this Area for the purpose of extending mineral extraction from the existing quarry to the west will be achieved through the existing quarry site. The proposed development will release currently sterilised mineral within the permitted planning boundary of the site.
- 1.6 It is anticipated that the Site will release approximately 500,000 tonnes of sand and gravel. Based upon current sales of approximately 500,000 tonnes per annum, this means extraction will take place over a period of 12 months with a further six months for restoration.

2.0 LEGISLATION

2.1 GCN are a European protected species and are safeguarded by both the Wildlife and Countryside Act 1981 (as amended) and the Habitat Directive. Legislation extends protection to the animals, their eggs, their breeding sites and resting places and is a means by which sites can be protected from undesirable change.

- Actions that would cause an offence under UK law include:
- The deliberate capture, killing, disturbance or injury of GCN
- Damaging or destroying a breeding or resting place
- Obstructing access to their resting or sheltering places (deliberately or by not taking enough care)
- Possessing, selling, controlling or transporting live or dead newts, or parts of them
- Taking GCN eggs

2.2 The legislation covers each of the life stages including eggs, tadpoles and adult equally.

2.3 A European Protected Species (EPS) licence may be required from Natural Resources Wales (NRW) if the disturbance or damaging of their habitats (ponds and the land around ponds) cannot be avoided. An application can only be made once planning permission for the scheme has been approved. In order to obtain a protected species licence, the client must demonstrate that the work cannot be avoided and that there are no alternatives.

2.4 The protected species licence will also require a suitable protection and mitigation method to be adopted.

3.0 BASELINE INFORMATION

- 3.1 COFNOD returned three counts of great crested newts (GCN), all located 800m from the site boundary in the wildlife reserve. These records were dated from 2003 to 2005.
- 3.2 The NBN search returned over 700 records GCN located approximately 1.2km to the south of the site. A large number of these records were dated from 2019.
- 3.3 The preliminary ecological appraisal survey (**Appendix C**) identified seven waterbodies within the wider Ballswood Quarry site (see Drawing No. KEDL-003-M (ED.005) - EDNA Ponds Map). In addition, there was one additional waterbody located approximately 200m to the west of the wider Quarry site boundary. All of the waterbodies located within the existing quarry were active quarry lagoons. Of the quarry lagoons, ponds 1,2 and 3 had been established for a period of time and therefore vegetation had begun to establish within the pond. Ponds 5,6 and 7 were assessed as silt lagoons. In addition, pond 8 was a newly created pond that had been recently excavated. Pond 4, located 200m to the west of the wider Quarry site boundary, is a large pond, surrounded by willow and alder tree species.
- 3.4 As all these ponds are within 500m of the site (maximum dispersal distance for great crested newts), Habitat Suitability Index (HSI) assessments were carried out for each of the ponds. Please see Table 1 below for the full HSI assessment details.
- 3.5 Table 1 HSI calculations for each waterbody assessed and their suitability for GCN

Waterbody	HSI Score	Suitability
Pond 1 (Grid Reference SJ348565)	0.43	Poor
Pond 2 (Grid Reference SJ349564)	0.43	Poor
Pond 3 (Grid Reference SJ350562)	0.7	Average
Pond 4 (Grid Reference SJ344559)	0.42	Poor
Pond 5 (Silt Lagoon) (Grid Reference SJ348563)	0.43	Poor
Pond 6 (Silt Lagoon) (Grid Reference SJ348563)	0.43	Poor
Pond 7 (Silt Lagoon) (Grid Reference SJ348563)	0.43	Poor
Pond 8 (Grid Reference SJ346560)	0.43	Poor

- 3.6 The above table indicates that Pond 3 has an average suitability for GCN. This was assessed as this pond is closer to the southern boundary broad-leaved semi natural woodland providing higher quality terrestrial habitat for GCN. In addition, this pond contained a higher percentage of macrophyte cover providing suitable egg laying habitat for GCN.
- 3.7 Ponds 1, 2, 4, 5, 6, 7 and 8 were all considered to provide a poor suitability for GCN. These ponds were all within the centre of the existing quarry workings and therefore the surrounding terrestrial habitat was poor. In addition, the macrophyte cover and water quality of these waterbodies was also assessed as poor.
- 3.8 In addition, the habitats located within Area A are assessed to provide sub-optimal suitability to support GCN.

Survey results

- 3.9 GCN Surveys were undertaken in April 2019 by suitably licenced ecologist commissioned by Heatons. The eDNA Survey Report is attached at **Appendix D**.
- 3.10 GCN eDNA surveys were undertaken on four waterbodies in total, these were Ponds 1, 2, 3 and 4.
- 3.11 These surveys were undertaken during the optimum survey season time between April and June following the methodology that of Froglife: Great Crested Newt Conservation Handbook.
- 3.12 The results of the GCN eDNA test were negative for all four ponds testing within the site and within 500m of the site boundary. It is not anticipated that GCN would be present within any of the waterbodies scoped out as part of the HSI assessment.

Comments from NRW and Response

- 3.13 In June 2021, NRW provided a response to Wrexham County Borough Council for the variation of conditions 01 and 08 of planning permission P/2016/0110 to change limits of extraction within permitted quarry boundary.
- 3.14 In relation to GCN, the NRW response stated:

'However, in our view inadequate survey and assessment has been carried out in respect of Great Crested Newt (GCN). This is because only a sample of ponds that could

potentially be occupied by the species have been surveyed and field survey methods used eDNA and Habitat Suitability Index (HSI) only.

GCN are protected under the Conservation of Habitats and Species Regulations 2017 (as amended). Paragraph 6.3.7 of Technical Advice Note 5: Nature Conservation and Planning (TAN5) states that your Authority should not grant planning permission without having satisfied itself that the proposed development either would not impact adversely on any GCN on the site or that, in its opinion, all three conditions for the eventual grant of a licence are likely to be satisfied. We consider that there currently is not enough information to assess potential effects of the proposal on any GCN that may be present at this site. Further information is required to assess the extent of adverse effects on GCN and any avoidance or mitigation measures required. We advise further survey. Following this, it must be demonstrated that the proposed development would not be likely to be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range. NRW would refer the Planning Authority to the letter from the Welsh Government to the Chief Planning Officer's letter dated 1 March 2018 which advises Local Planning Authorities to attach an informative regarding licence requirements to all consents and notices where European Protected Species are likely to be present on site'.

- 3.15 Heatons Response – The NRW guidance states that eDNA test results as evidence or absence of great crested newts are now accepted. *'We will accept this new technique to determine GCN presence or absence if samples are undertaken in strict accordance with the published technical advice note and they are collected by a suitably trained and experienced licensed GCN surveyor'*. Therefore, by conducting the initial HSI assessment and then undertaking eDNA samples on suitable ponds, it is therefore considered that Heatons have followed the recommended guidance provided by NRW to assess the absence of GCN within the site boundary and also within the maximum dispersal zone for GCN.
- 3.16 As part of the breeding bird surveys conducted on the site, in order to further clarify the validity of the GCN eDNA surveys, egg searches were conducted within onsite waterbodies to identify if GCN eggs may be present. No evidence of GCN was observed within any of the onsite waterbodies or within any waterbodies located 500m of the site. In addition, these waterbodies provided very limited aquatic vegetation that would be suitable for breeding GCN.

- 3.17 It is assessed that all surveyed waterbodies present within the site are highly unlikely to contain a population of GCN due to the intense quarrying activity immediately surrounding waterbodies. Any waterbodies present within the quarry that were not surveyed were either temporary lagoons or used as silt lagoons which are highly unlikely to contain the presence of GCN.
- 3.18 It is also assessed that the proposed works will have very limited impact on areas of suitable terrestrial habitat. Area A contains no suitable terrestrial habitat for GCN that is to be removed.
- 3.19 Within the 2021 survey season, further GCN eDNA testing was conducted on waterbodies located approximately 650m outside of the site boundary. It should be noted that these surveys were conducted on ponds with a higher suitability for GCN with less adjacent disturbance and with more surrounding areas of terrestrial habitat. All results from these tests were negative further suggesting the absence of a local population of GCN.

4.0 METHOD STATEMENT FOR GCN PROTECTION

4.1 As no GCN were found on site, the land use of the minor extension Area A comprises agricultural land in its entirety, there are no hedgerows and no other vegetation within or bordering the area, the GCN Conservation Plan must be limited in its detail. As such, we have provided a statement of response next to each of the 15 No. A to O suggested items, along with a detailed Method Statement.

Method Statement

4.2 The following Method Statement has been devised to facilitate the proposed quarry extension at Ballswood Quarry. The measures below are considered to ensure that all reasonable precautions have been taken to ensure that no GCN are killed, harmed or disturbed by the works. It should be noted that if GCN are found during the works, then work should stop, and an experienced ecologist should be consulted to assess the situation and agree a way forward.

- The field will remain in arable use until the onset of the clearance works to facilitate the quarrying.
- An appropriately licensed ecologist will be on site immediately prior to the works in order to outline this Method Statement to all site workers and to provide details on the procedure to follow in the unlikely event that a GCN is found during the works.
- A toolbox talk will be given to onsite contractors conducting the agricultural / vegetation clearance for each phase. This will ensure all onsite workers involved with vegetation clearance know what to look for regarding GCN.
- A finger-tip search will be undertaken by an appropriately licensed ecologist in those areas judged most sensitive, in closest proximity to the existing onsite ponds.
- The ecologist will remain on site for the duration of the vegetation clearance, carrying out destructive searches and supervision in order to spot and re-located any GCN that may be present on the site.

4.3 As it is highly unlikely that GCN are to be present on the site, no further survey works or mitigation measures are required for GCN.

5.0 SUMMARY

5.1 Kedd Limited have been commissioned to produce a Great Crested Newt (GCN) (*Triturus cristatus*) Conservation Plan in order to discharge Planning Condition 26 of Planning Permission Ref: P/2022/0448 for Ballswood Quarry.

5.2 A working method statement has been provided in order to ensure no GCN are impacted during the proposed works.

- A. Details of protective measures to be taken to minimise the impacts during operation. ***Response: Please refer to paragraph 4.2 of this document.***
- B. Details of timing/phasing and duration of activities. ***Response – Area A agricultural land will be stripped of soils in two operations, which is anticipated to take place in November / December 2022 and progressively in February 2023. Mineral will then be extracted over a 1 year period, upon which, the original soil profile will be replaced and agricultural land restored.***
- C. Submission of a long-term site management plan that includes:
- D. defined aims and objectives; ***Response – Agricultural land (Land will be subject to a 5 Year Aftercare Management Plan)***
- E. habitat management prescriptions; ***Response – the Site (Area A) will be restored to agricultural land***
- F. contingency measures if fish or invasive non-native species (INNS) are detected; ***Response – The Site (Area A) has no ponds and mineral will be extracted above the ground water table***
- G. proposals that are capable of being implemented in the event of failure to undertake or to appropriately implement identified or contingency actions; site liaison and wardening; ***Response – Please refer to paragraph 4.2 of this document***
- H. surveillance based on the methodology of results reported through the online Wales GCN Monitoring Scheme; ***Response – To be carried out by Steven Pagett, Principal Ecologist – Kedd Limited***
- I. licensing requirements for undertaking habitat management and surveillance; ***Response - as above (if required)***
- J. current and any proposed changes to tenure of the compensation area; ***Response – N/A***
- K. persons or bodies responsible for undertaking management and surveillance

together with required skills and competencies; ***Response – To be carried out by Steven Pagett, Principal Ecologist – Kedd Limited***

- L. reporting requirements ***Response – To be carried out by Steven Pagett, Principal Ecologist – Kedd Limited***; and
- M. proposed dates for updating or revising the management plan. ***Response – Land is to be restored to agriculture***
- N. Reporting of the results of Ecological Compliance Audits. ***Response – Land will be subject to a 5 Year Aftercare Management Plan to be restored to agriculture***
- O. Details of measures to prevent or reduce incidental capture, injury or killing. ***Response – Please refer to paragraph 4.2 of this document***

6.0 REFERENCES

1. ARG UK (2010). Great Crested Newt Habitat Suitability Index. [Online]. Available at: <https://www.arguk.org/info-advice/advice-notes/9-great-crested-newt-habitat-suitability-index-arg-advice-note-5/file>.
2. British Standard Institution (2012). Trees in relation to design, demolition and construction – Recommendations. [Online]. Available at: <https://beta.bathnes.gov.uk/sites/default/files/2020-01/BS5837%202012%20Trees.pdf>.
3. Edgar, P., Foster, J. and Baker, J. (2010). *Reptile Habitat Management Handbook*. Amphibians and Reptile Conservation: Bournemouth.
4. Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001). *Great Crested Newt Conservation Handbook*. Froglife: Halesworth.
5. Natural England (2015). *Badgers: Protection and Licences*. [Online]. Available at: <https://www.gov.uk/guidance/badgers-protection-surveys-and-licences>.
6. Scottish Badgers (2018). *Protecting Badgers – Guidance for Local Planning Authorities*. [Online]. Available at: https://www.scottishbadgers.org.uk/wp-content/uploads/2021/01/Protecting-Badgers-Guidance-for-Local-Planning-Authorities_Final-7366698.pdf

Appendix A

Decision Notice (P20220448)

In pursuance of its powers under the Acts and Orders referred to below, the County Borough Council as Local Planning Authority, hereby determines your application in accordance with the particulars and plans comprising the application

Applicant	MR RICHARD PARTON	Code Number	LLA P/2022/0448
Agent	MR ROBIN SMITHYMAN KEDD LTD FOX STUDIO KING STREET MUCH WENLOCK SHROPSHIRE TF13 6BL	Date Received	06/05/2022
		Decision Date	07/11/2022

Town and Country Planning Act, 1990

Location of application

BALLSWOOD QUARRY, GEGIN LANE, LLAY, WREXHAM. LL12 0NU

Description of application

ESTYNIAD I'R ARDALOEDD ECHDYNNU O FEWN FFIN BRESENNOL Y CHWAREL A GANIATEIR / EXTENSION TO THE EXTRACTION AREAS WITHIN THE EXISTING PERMITTED QUARRY BOUNDARY

In reaching this decision the Council has had regard to the relevant policies in the Wrexham Unitary Development Plan which are as follows:-

Revision	Date	Description of Decision
0	07/11/2022	Planning permission issued

Particulars of decision that permission be GRANTED

Subject to the following:-

Condition(s)

Commencement

1. The development to which this permission relates as referred to in No. Condition 4 shall be begun not later than the expiration of 5 years beginning with the date of this permission.

Applicant	MR RICHARD PARTON	Code	LLA P/2022/0448
Agent	MR ROBIN SMITHYMAN	Number	
	KEDD LTD	Date	06/05/2022
	FOX STUDIO	Received	
	KING STREET	Decision	07/11/2022
	MUCH WENLOCK	Date	
	SHROPSHIRE		
	TF13 6BL		

Approved Plans

2. The development hereby permitted shall be carried out strictly in accordance with the details shown on the following submitted plans and particulars submitted by the Applicant on 18 May 2022 and additional information and amended plans submitted by the application after 18 May 2022 unless specified as otherwise within any other condition pursuant to this permission:

The plans and documents comprising the Application are:

- Application Form dated 06.05.2022
- Supporting Planning Statement by Kedd Limited. Dated May 2022
- Location Plan - Drawing Ref: KD.BLWQ.2.D.005 Dated Dec 2021
- Land Under the Control of the Applicant - Drawing Ref: KD.BLWQ.2.D.018 Dated April 2022
- Additional Internal Concrete Haul Road and Secondary Wheel Wash - Drawing Ref: KD.BLWQ.2.D.019 Dated April 2022
- Tree Condition and Aerial Inspection Report - Prepared by Access 2 Tress Dated February 2022
- Noise Environmental Scheme prepared by Kedd Limited Dated February 2022
- Landscape and Visual Impact Assessment prepared by Kedd Limited Dated December 2021
- LVIA Appendix A - Drawings & Photosheets LR
- Bat Survey Report prepared by Heatons. Dated August 2020
- Breeding Bird Survey Report prepared by Heatons. Dated August 2020
- KD.BLWQ.D.2.007 Proposals Plan - Area A and B
- Dust and Air Quality Assessment prepared by Kedd Limited Dated February 2022
- Ecological Report: Ballswood Reptile Report- prepared by Heatons Dated December 2021
- Ecological Report: Ballswood eDNA Survey Report prepared by Heatons Dated December 2021
- Ecological Report: Ballswood Preliminary Ecological Appraisal. Prepared by Heatons. Dated December 2021
- Archaeological Report - Archaeology and Cultural Heritage Assessment prepared by Kedd Limited. Dated February 2022
- Arboricultural Survey Report prepared by Heatons. Dated August 2020
- Ballswood Habitat Regulations Assessment prepared by Kedd Limited Dated May 2022

Applicant	MR RICHARD PARTON	Code	LLA P/2022/0448
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		Decision Date	07/11/2022

Received by the Mineral Planning Authority on 13 July 2022:

- Archaeology Written Scheme of Investigation: Ballswood Quarry: Proposed Extension Written Scheme of Investigation Document Number B2208.WSI.MIT.01 dated June 2022 by Archaeology Brython Archaeology

Received by the Mineral Planning Authority on 18 July 2022

- Permitted Full Quarry Design FQD - Drawing Ref: KD.BLWQ.2.025. Dated June 2022
- Ballswood Quarry Water Management Summary Dated June 2022 prepared by HydroGeo Groundwater and Environment Ref: HYG712 M 280622 JW
- Ballswood Quarry - Agricultural Land and Soils Classification
- Update Bat Roost Survey Report prepared by Kedd Limited. Dated July 2022
- Letter dated 13.07.2022 from Steven Pagett, on behalf of Kedd Limited regarding the Summary of Bat Roost Surveys

Received by the Mineral Planning Authority on 5 August 2022

- Water Management Ponds - Drawing Ref: KD.BLWQ.2.027 Rev A. Dated June 2022 Received by the Mineral Planning Authority on 25 August 2022
- Proposals Plan - Drawing Ref: KD.BLWQ.2.007A. Dated August 2022
- Concept Restoration - Drawing Ref: KD.BLWQ.2.008C. Dated August 2022
- Typical Sections through Area A and B - Drawing Ref: KD.BLWQ.2.D.016B. Dated August 2022
- Section Location Plan - Drawing Ref: KD.BLWQ.2.017A. Dated August 2020
- Updated Topographic Surveys/Current Situation Drawing Ref: KD.BLWQ.2.021A. Dated August 2022
- Updated Topographic Surveys/Current Situation - Areas A and B - Drawing Ref: KD.BLWQ.2.022A. Dated August 2022
- Proposed Full Quarry Design FQD: AREA A - Drawing Ref: KD.BLWQ.2.023A. Dated August 2022
- Proposed Full Quarry Design FQD related to the Permitted Site and Area A - Drawing Ref: KD.BLWQ.2.024A. Dated August 2022
- Restoration Materials - Drawing Ref: KD.BLWQ.2.026A. Dated August 2022 Received by the Mineral Planning Authority on 19 October 2022

Applicant	MR RICHARD PARTON	Code	LLA P/2022/0448
Agent	MR ROBIN SMITHYMAN	Number	
	KEDD LTD	Date	06/05/2022
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	SHROPSHIRE		
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Received by the Mineral Planning Authority on 19 October 2022

- Proposed Route of Permissive Path with Woodland adjacent to Gegin Lane
- 3. Throughout the operational life of the Site, a copy of this permission, including all the documents hereby approved, or subsequently approved, and forming part of the permission, shall always be available at the site office for inspection during normal working hours as set out in Condition No. 9 of this permission.
- 4. This permission relates to the extraction and processing of sand and gravel, associated restoration, landscaping and aftercare works within the area as shown edged in red and labelled 'Area A' on the approved Proposals Plan reference Drawing No. KD.BLWQ.2.D. 007A dated August 2022 and hereinafter referred to as the 'site'.
- 5. Strictly no winning and working of minerals is permitted to take place within the area shown edged in red area labelled 'Area B' on the approved Proposals Plan reference Drawing No. KD.BLWQ.2.D. 007A dated August 2022.

Extraction Limit

- 6. Strictly no winning and working of mineral is permitted to take place below 25m AoD.

Duration

- 7. Mineral extraction shall cease at the site within three years of the date of the commencement of the development hereby approved. The dates of final cessation of mineral extraction shall be notified in writing to the Mineral Planning Authority within 14 days of the said date.
- 8. Restoration of the Site, in accordance with the details set out in the Application, and as maybe subsequently approved under Conditions No. 31 shall be completed within 1 year of the date of the final cessation of mineral extraction at the Site, whichever is the earlier. The dates the completion of restoration shall be notified in writing to the Mineral Planning Authority within 15 days of the said date.

Applicant	MR RICHARD PARTON	Code	LLA P/2022/0448
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		Decision Date	07/11/2022

Hours of Operation

9. The permitted hours of working of the permitted quarry site and associated operations shall be:
0700-1800 hours Monday - Friday, and 0730-1300 hours Saturday

No operations apart from maintenance, or emergency works in connection with the safety of the Site shall be carried out outside these hours, or on any Sunday, Bank or Public Holiday

Dust Mitigation

10. Measures to minimise the emission of dust from the Site shall be maintained at all times throughout the period of mineral extraction. The said measures shall include the dust control methods set out in the chapter 4 'Dust Management' of the approved Dust and Air Quality Assessment dated February 2022 by Kedd Limited.
11. No HGV vehicle exiting the Site (which for the purposes of this condition excludes those vehicles which originate from separate premises at Homesteads Garage, and Dependable Concrete who share the Site access road) shall enter the public highway in a condition which is liable to cause deposits of mud, debris or deleterious materials on the public highway and all HGVs exiting the Site shall be appropriately sheeted. All HGVs shall be cleaned of mud and debris by use of wheel/chassis cleaning facilities on site. The wheel cleaning facilities shall be maintained in a good working order and adequately maintained throughout the life of the development.
12. Within three months from the date of this permission, specification details of the Secondary Wheelwash as shown on approved plan ref: KD.BLWQ.2.D.019 'Additional Internal Concrete Haul Road and Secondary Wheelwash', shall be approved in writing by the Mineral Planning Authority.
13. The Secondary Wheelwash and haul road improvements as shown on approved plan ref: KD.BLWQ.2.D.019 'Additional Internal Concrete Haul Road and Secondary Wheelwash' shall be installed and constructed as approved pursuant to details required by Condition No.12 and shall be completed as approved within three months from the date of the details being approved in writing pursuant to condition No.12.

Applicant	MR RICHARD PARTON	Code	LLA P/2022/0448
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Control of Noise

14. Best practice mitigation measures to minimise noise arising from the operations at the site shall be employed at the Site all times as detailed within the approved 'Noise Environmental Scheme' dated February 2022. All vehicles, plant and machinery operated on the site shall be maintained in accordance with the manufacturer's specification at all times and shall be fitted with effective silencers and shall use noise attenuating equipment such as broad band reversing warning devices. Noise mitigation measures shall be monitored and reviewed annually, and additional measures shall be agreed if noise limits as set within Condition No. 15 and 16 are being breached.
15. The rating level of any noise generated by reason of this development shall not exceed 55 dB(A) where background noise levels exceed 45 dB(A). Where background noise is less than 45 dB(A) the noise level shall not exceed the background level (L90) by more than 10 dB(A). The noise levels shall be determined at nearby noise sensitive premises, and measurements and assessment shall be made in accordance with BS4142:2014 Methods for rating and assessing industrial and commercial sound.
16. During temporary and short-term operations which include soil stripping higher levels are permissible but should not exceed 67dB(A) (1 hour, free field) for periods of up to 8 weeks in a year at the nearest noise sensitive property.

Fixed Plant

17. Notwithstanding the provisions of Part 19 of the Town & Country Planning (General Permitted Development) Order 1995, no fixed plant, structures or building shall be erected or installed within the Site, except in accordance with such details of siting, design and external appearance as may have been previously agreed in writing by the Mineral Planning Authority.

Applicant	MR RICHARD PARTON	Code	LLA P/2022/0448
Agent	MR ROBIN SMITHYMAN KEDD LTD FOX STUDIO KING STREET MUCH WENLOCK SHROPSHIRE TF13 6BL	Number Date Received	06/05/2022
		Decision Date	07/11/2022

Pollution and Ground water

18. Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound shall be at least equivalent to the capacity of the tank plus 10%. If there is multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses must be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework shall be located above ground level and protected from accidental damage. All filling points and tank overflow pipe outlets shall be designed to discharge downwards within the bund. There shall be no discharge of oils, fuels, chemicals, contaminated surface water or plant effluent onto any land, watercourse or underground strata.
19. Pollution Prevention Measures as Appendix 4 dated April 2022 of the Planning Supporting Statement Dated May 2022 shall be employed on site at all times and throughout the life of the development.
20. The approved Surface Water Management Plan as set out in Appendix 3 dated April 2022 of the Planning Supporting Statement Dated May 2022 shall be implemented as approved on site at all times and throughout the life of the development.
21. The approved development shall take place within the application labelled Area A in accordance with the approved Written Scheme of Investigation Ballswood Quarry: Proposed Extension Written Scheme of Investigation Document Number B2208.WSI.MIT.01 dated June 2022 by Archaeology Brython Archaeology.

The archaeological programme of work will be undertaken and completed in accordance with the relevant Standards and Guidance laid down by the Chartered Institute for Archaeologists. A copy of the resulting report should be submitted to the Local Planning Authority and the Development Control Archaeologist, (Clwyd-Powys Archaeological Trust, The Offices, Coed y Dinas, Welshpool, SY21 8RP Email: mark.walters@cpat.org.uk Tel: 01938 553670). A copy of the report and resulting archive should be sent to the Historic Environment Record Officer, Clwyd-Powys Archaeological Trust for inclusion in the regional Historic Environment Record and to the National Monuments Record, RCAHMW.

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Soil Handling

22. No stripping or handling of topsoil or subsoil shall take place within the Site unless a scheme of soil movement and soil management has been submitted to and approved in writing by the Mineral Planning Authority. The approved scheme shall clearly identify the origin, intermediate and final locations of soils for use in agricultural restoration together with details of quantities, depths and areas involved. The development shall be implemented in accordance with the approved scheme.
23. Topsoil, subsoil and soil making material shall only be stripped when they are in a dry and friable condition, and no movement of soils shall occur:
 - (a) During the months October to April (inclusive), unless otherwise agreed in writing with the Mineral Planning Authority; or
 - (b) When the upper 1200mm of soil has a moisture content which is equal to or greater than that at which the soil becomes plastic, tested in accordance with the 'Worm Test' as set out in BS 1377:1975 - 'British Standard Methods Test for Soils for Civil Engineering Purposes'; or
 - (c) When there are pools of water on the soil surface.

Ecological Mitigation

24. No development shall take place (including, ground works, vegetation clearance) until a construction environmental management plan (CEMP: Biodiversity) has been submitted to and approved in writing by the Mineral planning authority. The CEMP Biodiversity shall include the following.
 - a) Risk assessment of potentially damaging construction activities.
 - b) Identification of "biodiversity protection zones".
 - c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).
 - d) The location and timing of sensitive works to avoid harm to biodiversity features.
 - e) The times during construction when specialist ecologists need to be present on site to oversee works, pre commencement surveys and the distribution of results.
 - f) Responsible persons and lines of communication.
 - g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.
 - h) Use of protective fences, exclusion barriers and warning signs.

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The approved CEMP: Biodiversity shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

25. An ecological compliance audit shall be carried out by a qualified ecologist, independently of the appointed principal ecologist, in accordance with details which have been submitted to and approved in writing by the Local Planning Authority. A copy of the completed audit reports should be submitted to and approved in writing by the Local Planning Authority after each phase of development.
26. No development shall commence until a Great Crested Newt Conservation Plan covering operation and post-operation has been submitted to and approved in writing by the Mineral Planning Authority. The Conservation Plan shall include, though not necessarily be limited to, the following:
 - a) Details of protective measures to be taken to minimise the impacts during operation.
 - b) Details of timing/phasing and duration of activities.
 - c) Submission of a long-term site management plan that includes:
 - d) defined aims and objectives;
 - e) habitat management prescriptions;
 - f) contingency measures if fish or invasive non-native species (INNS) are detected;
 - g) proposals that are capable of being implemented in the event of failure to undertake or to appropriately implement identified or contingency actions; site liaison and wardening;
 - h) surveillance based on the methodology of results reported through the online Wales GCN Monitoring Scheme;
 - i) licensing requirements for undertaking habitat management and surveillance;
 - j) current and any proposed changes to tenure of the compensation area;
 - k) persons or bodies responsible for undertaking management and surveillance together with required skills and competencies;
 - l) reporting requirements; and
 - m) proposed dates for updating or revising the management plan.
 - n) Reporting of the results of Ecological Compliance Audits.
 - o) Details of measures to prevent or reduce incidental capture, injury or killing.

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The Conservation Plan shall be carried out in accordance with the approved details for the life of the development.

27. The mitigation measures as set out in sections 6.1 - 6.7 of the approved 'Ballswood Update Bat Roost Survey Report' dated July 2022 and prepared by Kedd Limited shall be implemented as approved and in full for the life of the development.
28. Prior to the installation of any lighting, a bat friendly lighting plan shall be submitted for written approval to the Mineral Planning Authority. The lighting shall be implemented as approved for the life of the development hereby approved.

Tree Protection

29. Prior to working within 100 metres of trees T2, T3 and T4, trees affected by the development hereby approved shall be afforded necessary protection with appropriate maximum root protection areas, as stated within the approved Arboricultural Survey Report dated August 2020 prepared by Heaton's, Fencing shall be installed in accordance with specifications provided within BS5837:2012 or as otherwise agreed in writing with the Mineral Planning Authority.
30. All existing perimeter hedges, trees, undisturbed ground vegetation and fences shall be maintained and protected and hedges and boundary fences shall be made stock-proof and shall be maintained throughout the life of the permitted quarry operations until the restoration of the site is completed to the satisfaction of the Mineral Planning Authority. Site operations shall not disturb or destroy any retained hedges and trees including boundary hedges and trees, and fences shall be erected and maintained to protect the same. Retained hedgerows within or bounding the site shall be carefully maintained, cut and trimmed when appropriate, at the proper season throughout the period of working and restoration of the site.
31. Within six months of the date of this decision notice, a scheme of restoration for the site shall be submitted to the Mineral Planning Authority for written approval.

The approved restoration scheme shall provide for the following matters:-

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- a) The restoration of the development including treatment, spreading of overburden and soils, fertilisation of the soils, seeding, planting and drainage, location of fences and field boundaries, access tracks and field water supply systems.
 - b) The planting of trees, hedgerows and shrubs, to include the following;
 - i. the location, species, numbers and timing of the planting of trees, hedgerows and shrubs within the site;
 - ii. the methods of planting, protection, maintenance and replacement of trees, hedgerows, and shrubs within the site.
 - c) The location of existing, retained vegetation and woodland areas within the site, including their protection, management and enhancement.
 - d) The final treatment of the quarry floor and haul roads, the removal of buildings, plant, hardstandings and reinstatement of the access onto the highway.
32. Within twelve months of the date of this permission, a detailed 5 year aftercare scheme for the management and maintenance of the restored site shall be submitted to the Mineral Planning Authority for written approval.

The approved aftercare shall:

- a) detail the steps that are necessary to bring the land to the required standard for agricultural use;
- b) provide a strategy for the five year aftercare period which shall specify the steps to be taken and the period in which they are to be take;
- c) Include the provision of a field drainage system;
- d) Provide for an annual meeting between the operator of the site and the mineral planning authority;
- e) Provide for a detailed annual reporting programme which shall evaluate the aftercare works carried out in the previous year, and provide details of the aftercare works to be carried out in the forthcoming year shall be submitted no later than one month prior to the annual aftercare meeting

The approved scheme shall be implemented in full in accordance with the details and timescales set out in the approved scheme.

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33. Any tree or shrub forming part of the approved restoration scheme in connection with the development under Condition 31 of this permission that dies, is damaged, diseased or removed within the duration of 5 years during and after the completion of the development shall be replaced during the next available planting season (October to March inclusive) with a tree or shrub to be agreed in advance in writing by the Mineral Planning Authority.

Liaison Committee

34. Within 2 months from the date of this permission, a scheme detailing the terms of reference for a Quarry Liaison Committee shall be submitted in writing for the written approval of the Mineral Planning Authority. The approved scheme shall include inter alia:
- a) the functions and terms of reference of the Liaison Committee;
 - b) a list of potential members;
 - c) suggested venue and frequency of the meetings;
 - d) a mechanism for review.

Permissive Path

35. Within two months of the date of the permission highways mitigation measures shall installed as set out on approved image 'Proposed Route of Permissive Path with Woodland adjacent to Gegin Lane received on 19 October 2022.

Boundary Treatment

36. Within one month of the date of this permission a scheme of boundary treatment at the location of the former Quarry entrance on Gegin Lane shall be submitted for written approval of the Mineral Planning Authority. The approved boundary treatment scheme shall be implemented within two months following that written approval and any approved planting shall be carried out in the next year's planting season.

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Reason(s)

1. To comply with Section 91(3) of the Town and Country Planning Act, 1990.
2. For the avoidance of doubt, to ensure that the development is carried out as approved and to assist compliance monitoring.
3. For the avoidance of doubt, to ensure that the development is carried out in accordance with the approved documents and to assist compliance monitoring.
4. For the avoidance of doubt, to ensure that the development is carried out in accordance with the approved documents and to assist compliance monitoring.
5. For the avoidance of doubt, to ensure that the development is carried out as approved and to assist compliance monitoring, and in the interests of the protection of protected trees, and to accord with the provisions of Policy EC4 of the adopted Wrexham Unitary Development Plan.
6. For the avoidance of doubt, to ensure that the development is carried out as approved and to assist compliance monitoring, and to protect water resources and pollution prevention in accordance with policy GDP1(f) of the Wrexham Unitary Development Plan.
7. To ensure certainty for the life of the development, to limit the timescale of operations, and to align with the cessation of mineral extraction permitted at the site under planning permission Reference P/2016/0110, and to ensure that the development and restoration is carried out in a timely manner.
8. To ensure certainty for the life of the development, to align with the cessation of mineral extraction permitted at the site under planning permission Reference P/2016/0110, and to ensure that the development and restoration is carried out in a timely manner.

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9. To protect the amenities of the occupiers of nearby properties in accordance with Policy GDP1 of the Wrexham Unitary Development Plan.
10. To protect the amenities of the occupiers of nearby properties in accordance with Policy GDP1 of the Wrexham Unitary Development Plan.
11. To protect the amenities of the occupiers of nearby properties in accordance with Policy GDP1 of the Wrexham Unitary Development Plan.
12. To protect the amenities of the occupiers of nearby properties and in the interests of highway safety in accordance with Policy GDP1 of the Wrexham Unitary Development Plan.
13. To protect the amenities of the occupiers of nearby properties and in the interests of highway safety in accordance with Policy GDP1 of the Wrexham Unitary Development Plan.
14. To protect the amenities of the occupiers of nearby properties in accordance with Policy GDP1 of the Wrexham Unitary Development Plan.
15. To protect the amenities of the occupiers of nearby properties in accordance with Policy GDP1 of the Wrexham Unitary Development Plan.
16. In the interests of residential amenity, and to take account that certain essential activities generate unavoidable higher levels of noise. To comply with Policy GDP1 of the adopted Wrexham Unitary Development Plan.
17. To ensure that plant and machinery can be assessed for residential amenity impact and visual impact. To comply with Policy GDP1 of the adopted Wrexham Unitary Development Plan.
18. In the interest of protection of the environment and water resources. To comply with Policy GDP1 of the adopted Wrexham Unitary Development Plan.

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19. For the avoidance of doubt and in the interest of protection of the environment and water resources. To comply with Policy GDP1 of the adopted Wrexham Unitary Development Plan.
20. For the avoidance of doubt and in the interest of protection of the environment and water resources. To comply with Policy GDP1 of the adopted Wrexham Unitary Development Plan.
21. In the interests of archaeology and to secure preservation by record of all archaeological remains which will be impacted by the development in Area A and to accord with Policy EC11 of the adopted Wrexham Unitary Development Plan.
22. For the avoidance of doubt, in the interests of the protection of soil resources on site and in the interest of the retention of existing soils on the site for restoration purposes, and to minimise the impact of the development on the locality and to accord with the provisions of Policies GDP1, EC2 and MW8 of the adopted Wrexham Unitary Development Plan.
23. For the avoidance of doubt, in the interests of the protection of soil resources on site and in the interest of the retention of existing soils on the site for restoration purposes, and to minimise the impact of the development on the locality and to accord with the provisions of Policies GDP1, EC2 and MW8 of the adopted Wrexham Unitary Development Plan.
24. For the avoidance of doubt, in the interests of nature conservation and to accord with the provisions of Policies PS11, GDP1 and EC6 of the adopted Wrexham Unitary Development Plan.
25. For the avoidance of doubt, in the interests of nature conservation and to accord with the provisions of Policies PS11, GDP1 and EC6 of the adopted Wrexham Unitary Development Plan.
26. For the avoidance of doubt, in the interests of nature conservation and protected species and to accord with the provisions of Policies PS11, GDP1 and EC6 of the adopted Wrexham Unitary Development Plan.

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27. For the avoidance of doubt, in the interests of nature conservation and protected species and to accord with the provisions of Policies PS11, GDP1 and EC6 of the adopted Wrexham Unitary Development Plan.
28. For the avoidance of doubt, in the interests of nature conservation and protected species and to accord with the provisions of Policies PS11, GDP1 and EC6 of the adopted Wrexham Unitary Development Plan.
29. In the interest of visual amenity and to ensure protection for the existing natural environment and trees on site, and to accord with the provisions of policy EC4 of the adopted Wrexham Unitary Development Plan.
30. In the interest of visual amenity and to ensure protection for the existing natural environment and trees on site, and to accord with the provisions of policy EC4 of the adopted Wrexham Unitary Development Plan.
31. For the avoidance of doubt, in the interests of the restoration of the site, and to minimise the impact of the development on the locality, in the interests of visual amenity, and to accord with the provisions of Policies GDP1, EC2 and MW8 of the adopted Wrexham Unitary Development Plan.
32. For the avoidance of doubt, to ensure successful restoration and aftercare of the site for agriculture, to minimise the impact of the development on the locality, in the interests of visual amenity, and to accord with the provisions of Policies GDP1, EC2 and MW8 of the adopted Wrexham Unitary Development Plan.
33. For the avoidance of doubt, in the interests of the successful restoration of the Site. In the interests of visual amenity, wildlife conservation and biodiversity, and to accord with the provisions of Policies GDP1, EC2, EC4 and MW8 of the adopted Wrexham Unitary Development Plan.
34. To ensure that there is a mechanism for engaging with the local community to ensure that they are fully informed with regards to activities associated with the quarrying operations and development

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hereby approved to encourage improved community and operator relations, and in the interest of local amenity.

35. In the interests of highways and pedestrian safety in accordance with the provisions of Policy GDP1 of the Wrexham Unitary Development Plan.
36. To ensure a satisfactory standard of appearance of the development in the interests of the visual amenities of the area in accordance with Policies GDP1 and PS2 of the Wrexham Unitary Development Plan.

Note(s) to applicant

HIGHWAYS

Highways, the applicant's attention should be drawn to item nos. 1, 2, 3, 4 & 5 of the supplementary notes

QUARRY REGULATIONS 1999

The operator of the quarry is required to adhere to the Quarry Regulations 1999, particular note to Regulation 16 relating to perimeter security around the quarry.

OTHER PERMITS AND LICENCES

The abstraction quantities in the Water Management Summary document confirm that the site would require abstraction licences for the operations that are being carried out. Discharge permits are also likely to be required. The applicant is therefore advised to hold pre-application discussions with the Natural Resources Wales Permitting Team on 0300 065 3000, at the earliest opportunity, to try to ensure that there is no conflict between any planning permission granted and the licence/permit requirements. It is important to note that a grant of planning permission does not guarantee that a licence/permit will be granted, should a proposal be deemed to be unacceptable.

In addition to planning permission, it is the responsibility of the operator to ensure they secure all other permits/consents/licences relevant to their development. Please refer to the Natural Resources Wales website for further details. <https://naturalresources.wales/permits-and-permissions/?lang=en>

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DWR CYMRU/WELSH WATER

The applicant is advised that some public sewers and lateral drains may not be recorded on our maps; some sewers were originally privately owned and were transferred into public ownership by nature of the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011. The presence of such assets may affect the proposal. In order to assist us in dealing with the proposal the applicant may contact Dwr Cymru Welsh Water. Under the Water Industry Act 1991 Dwr Cymru Welsh Water has rights of access to its apparatus at all times.

The applicant may also need to apply to Dwr Cymru / Welsh Water for any connection to the public sewer under S106 of the Water industry Act 1991. If the connection to the public sewer network is either via a lateral drain (i.e. a drain which extends beyond the connecting property boundary) or via a new sewer (i.e. serves more than one property), it is now a mandatory requirement to first enter into a Section 104 Adoption Agreement (Water Industry Act 1991). The design of the sewers and lateral drains must also conform to the Welsh Ministers Standards for Gravity Foul Sewers and Lateral Drains, and conform with the publication ""Sewers for Adoption"" 7th Edition. Further information can be obtained via the Developer Services pages of www.dwrcymru.com



David Fitzsimon
Prif Swyddog Yr Economi a Chynllunio
Chief Officer Economy and Planning

Refer to Statement of Applicant's Rights and General Information on our planning web site at:-

http://www.wrexham.gov.uk/english/planning_portal/publications/info_sheets.htm

Appendix B

Proposals Plan (KD.BLWQ.2.D.007A)

Ballswood Quarry

Changes to the Limit of Extraction within the Existing Planning Permission Boundary

Aim of Proposals:

- To avoid the sterilisation of mineral within the Permitted Planning Permission Boundary (Application Boundary)

Please note: this plan represents a combination of the proposals, including both working and restoration, and should not be read that these would all take place at the same time.

Due to the geological nature of the site, Area A, together with the limited remaining consented mineral, are to be worked concurrently to ensure suitable product splits and blending opportunities of both sands and gravels is possible.

An extensive drilling exercise took place in 2019 which has been geologically assessed to identify the location, nature and quality of remaining mineral contained within the Permitted Planning Boundary (Application Boundary).

The summary of the remaining on-site Sand and Gravel being:

Remaining mineral contained within the permitted limit of extraction (at point of Planning Application submission)	200,000 tonnes
Area A (4.37 Hectares)	500,000 tonnes
Total Additional Mineral Estimate	500,000 tonnes

Note: all proposals are contained within the existing permitted planning boundary



LEGEND

- Proposed Planning Application Boundary
- Existing ROMP / Planning Permission Boundary
- Limit of Extraction (1997)
- Quarry Operational Land
- Current Restoration Areas
- Homestead Garage
- Mount Alyn
- Concrete Batching Plant
- Agricultural Land within the Planning Permission Boundary
- Contours (2m) and Spot Heights
- Surrounding Water Bodies
- Existing Woodland, Trees, Shrubs and Hedgerows
- Existing Buildings, Structures, Roads and Tracks
- Public Rights of Way (PROW)

Proposals

- Proposed Additional Extraction Area (Area A) - Total Area: 4.37 Hectares
- Operational Waterbodies / Lagoons

Note: all proposals are contained within the existing permitted planning boundary

CHESHIRE & NORTH WALES SAND & GRAVEL LTD.

PROJECT:
Ballswood Quarry

TITLE:
Proposals Plan

REF NO:
KD.BLWQ.2.D.007A

DATE:
August 2022

SCALE:
1:5,000 @ A3

STATUS:
FINAL

Appendix C – Preliminary Ecological Appraisal



Ballswood
PRELIMINARY ECOLOGICAL APPRAISAL

in respect of

***Planning Application For 2No. Changes to the Limits of Extraction within
the Existing Permitted Planning Boundary of Ballswood Quarry***

for

Cheshire and North Wales Sand and Gravel Ltd

Prepared By

Heaton's

December 2021

Heaton's

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2. National Legislation
3. Assessment Methodology
4. Desktop Study
5. Site Survey Findings
6. Likely Impacts
7. Further Survey Requirements
8. Conclusions and Provisional Recommendations
9. Summary

Appendix A – Phase 1 Habitat Survey Map

Appendix B – Site Photographs

1.0 INTRODUCTION

1.1 Heatons Limited have been commissioned by Cheshire and North Wales Sand and Gravel Ltd to undertake a Preliminary Ecological Appraisal to determine the ecological status of land within the existing Ballswood Quarry, and arable farmland fields located immediately to the east of the existing quarry.

1.2 On the 22/06/2021, comments were received from NRW stating 'We have concerns that the proposed development, as submitted, will damage the features for which the Marford Quarry SSSI is of special interest, in particular the wild licorice. Chwarel Singret SSSI is geological and therefore not sensitive to the proposals, even though it is immediately outside the application site'. A response to these comments has been provided within the likely impacts section below.

Appraisal Objectives

1.3 The objectives of the Preliminary Ecological Appraisal are to ascertain the habitat types and key ecological issues relating to the development proposal. This includes identifying potential impacts upon designated species and habitats and determining whether there is a need for more detailed surveys of notable plant and animal species. Sufficient ecological information is required to fully inform the site design and the proposed works. This report identifies the ecological constraints at the site and makes recommendations for further ecological surveys. Likely ecological impacts have been assessed based on the design proposals. Proposals for suitable mitigation have also been made. The adoption of the mitigation proposals will enable the project to satisfy current UK and European legal wildlife requirements, as well as national and local planning regulations. All public bodies have statutory obligations under the Natural Environment and Rural Communities Act 2006 to conserve and enhance biodiversity. A review of the ecological impacts must be undertaken once detailed layouts are available, so that suitable amendments to mitigation measures can be made.

1.4 Scope of Works

Sufficient ecological information is required to fully inform the site design and the proposed works. The Preliminary Ecological Appraisal comprises the following elements:

- Desktop study of available site information.;

- Phase 1 Habitat survey of the site;
- Assessment of the potential impacts of the proposed scheme;
- Appraisal of the requirements for further survey work; and
- Appraisal of the requirements for mitigation and potential for enhancement measures.

Site location and description

- 1.5 Ballswood Quarry is located at Gegin Lane, Wrexham, LL12 0NU, and is one of three active sand and gravel quarries in the County Borough of Wrexham (the others being Borrass Quarry and Hafod Quarry). Ballswood Quarry is operated by Cheshire and North Wales Sand and Gravel Ltd.
- 1.6 The majority of the site is comprised of existing quarry, with areas of scattered scrub and tall ruderal vegetation located around existing soil bunds. The boundaries of the existing quarry are comprised of broad-leaved semi natural woodland and hedgerows. There are a number of waterbodies located within the existing quarry. The eastern section of the site is comprised of arable fields and heavily grazed improved grassland.

Proposed Development

- 1.7 The proposed development involves the 2 extensions which are within the permitted red line boundary of the existing Ballswood Quarry, although outside the extraction area on the approved plans. Access to the site for the purpose of extending mineral extraction from the existing quarry to the west would best be supplied through the existing quarry site. The proposed development will release currently sterilised mineral within the permitted planning boundary of the site.

2.0 NATIONAL LEGISLATION

National Policy National Planning Policy (Wales) Planning Policy

- 2.1 Wales (PPW)¹ sets out the land use planning policies of the Welsh Government. The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales.
- 2.2 Section 6.4 of PPW relates to biodiversity and ecological networks. Paragraph 6.4.3 of PPW states that: “The planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement.”
- 2.3 It goes on to state that: “Development plan strategies, policies and development proposals must consider the need to:
- support the conservation of biodiversity, in particular the conservation of wildlife and habitats;
 - ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;
 - ensure statutorily and non-statutorily designated sites are properly protected and managed;
 - safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and 1 <https://gov.wales/planning-policy-wales>
 - secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.”
 - Section 6.4 goes on to set out policy in respect of:
 - Biodiversity and Resilience of Ecosystems Duty, as set out in Section 6 of the Environment (Wales) Act 2016;
 - Designated Sites, including:

- Sites of Special Scientific Interest;
 - Special Protection Areas, Special Areas of Conservation and Ramsar Sites;
 - Proposed Special Areas of Conservation, Special Protection Areas and Ramsar sites; and
 - Non-statutory Designations.
- Protected Species; and
 - Trees, Woodlands and Hedgerows.

2.4 PPW is supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters, which together with PPW provide the national planning policy framework for Wales. TAN 55 deals with Nature Conservation and Planning and states in paragraph 2.4:

“When considering policies and proposals in local development plans and when deciding planning applications that may affect nature conservation, local planning authorities should:

- Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long term perspective;
- Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
- Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
- Ensure that appropriate weight is attached to designated sites of international, national and local importance;
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;

- Ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation;
- Ensure that the range and population of protected species is sustained;
- Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered.”

Environment (Wales) Act 2016

2.5 The Environment (Wales) Act puts in place the legislation needed to plan and manage Wales’ natural resources in a more proactive, sustainable and joined-up way. Part 1 Section 6 of the Act introduces a new biodiversity duty, which replaces and enhances the biodiversity duties set out in the NERC Act 2006 and requires public authorities to seek to maintain and enhance biodiversity in the exercise of their functions and in so doing promote the resilience of ecosystems. Section 7 of the Act lists living organisms and types of habitat in Wales, considered to be of key significance to sustain and improve biodiversity in relation to Wales.

3.0 ASSESSMENT METHODOLOGY

Desktop Study

3.1 To accurately assess the potential ecological impacts of the scheme, a desktop study has been undertaken to identify the presence of sensitive ecological receptors at the site and within the surrounding area. Data has been obtained from a range of information sources including:

- National Biodiversity Network (NBN); and
- COFNOD – The local environmental records centre for North Wales.

3.1.1 Information on sites of nature conservation interest within a 2km radius of the centre of the site was obtained from the Countryside Council for Wales website. In addition, Cofnod (the local record centre for North Wales) was commissioned to undertake a data search for all protected and notable species and all sites of conservation importance within 2km of the site.

Ecological Walkover Survey

3.2 This assessment follows the methodology of a Phase 1 Habitat Survey, which aims to identify habitat features of value to different plant and animal groups. The methodology used for this survey implements those detailed by the Institute of Environmental Assessment (IEA) (1995) and the Joint Nature Conservation Committee (JNCC) (2010).

3.3 A site visit was completed to map general habitats present in the area. The survey also aimed to record any evidence of the species groups outlined below, including habitat features with the potential to support them:

- Nesting birds, particularly specially protected species;
- Animal species protected under UK legislation and European legislation;
- Invasive species, particularly Japanese Knotweed, (*Fallopia japonica*) and Giant Hogweed, (*Heracleum mantegazzianum*) which are listed under UK legislation.

3.4 This information allowed the requirement for more detailed species surveys to be evaluated.

HSI Assessment

- 3.5 A Habitat Suitability Index (HSI) assessment was undertaken on all waterbodies on the site and within 500m of the site boundaries (on the near side of major dispersal barriers and where access permission was granted). This assessment was undertaken in order to establish the likelihood of great crested newts (*Triturus cristatus*) either breeding on the site or dispersing to the site in their terrestrial phase. The HSI is a standard assessment method developed specifically to evaluate the habitat suitability for this species. A series of factors must be considered. Each factor is assessed along suitability guidelines and allocated a value of between 0.01 (highly unsuitable) to 1.0 (highly suitable). The geometric mean of these values provides an overall suitability score for each waterbody. Although this is no substitute for a dedicated survey, it does give an indication of whether such a survey is required.

4.0 DESKTOP STUDY

Statutory Designated Sites

- 4.1 There are three Statutory Designated Sites located within 2km of the site boundary. The closest of these is the Chwarel Singret Special Site of Scientific Interest (SSSI). This is located approximately immediately adjacent to the quarry plant site and is designated for geological interest.
- 4.2 The Marford Quarry SSSI is located 0.6km to the south-east of the site boundary. This site is designated for its large diversity of lepidopteran species which include a variety of nationally rare species. In addition to this there is a number of floral species indicative of a calcareous sand and gravel substrate, with a range of seral succession stages from bare ground to scrub/woodland.
- 4.3 The Alyn waters Local Nature Reserve (LNR) is located approximately 1.9km to the south-west of the site boundary. The site is designated for its rich meadow habitat, variety of grassland, woodland. Species recorded at Alyn Waters include kingfisher (*Alcedo atthis*) buzzard (*Buteo buteo*), kestrel (*Falco tinnunculus*), fox (*Vulpes vulpes*), adder (*Vipera berus*), grass snake (*Natrix Helvetica*), smooth newt (*Lissotriton vulgaris*) and a variety of bat species.

Non-Statutory Designated Sites

- 4.4 The COFNOD search returned records for seven non-statutory designated sites within 2km of the site boundary. The closest of these is the Ballswood Quarry and Cockpit Wood Local Wildlife Site (LWS) which covers the existing quarry and the wider extending broad-leaved semi natural woodlands.
- 4.5 The Chwarel Marford Quarry SSSI site is also designated as a North Wales Wildlife Trust Reserve.
- 4.6 Burton Tower Lake (LWS) is located 1km north of the site boundary. This site is a fishing lake which has ornithological importance. The lake contains marginal vegetation and is surrounded by broad-leaved semi natural woodland. The site covers approximately 3.1 hectares.
- 4.7 The Nant-y-Gaer and Llay valley (LWS) is located approximately 1.3km to the south-west of the site boundary. The site covers approximately 12.1 hectares and is designated for its broad-leaved semi natural woodland.
- 4.8 The Bryn Alyn and Wormswood (LWS) is located approximately 1.4km to the south-west of the site boundary. This site covers approximately 49.2 hectares

and is designated for broad-leaved semi natural woodlands and semi-improved grasslands located along a meander of the River Alyn.

- 4.9 The Hoseley Wood (LWS) is located approximately 1.6km to the south-east of the site boundary. This area covers approximately 16.7 hectares and the site is designated for habitats including broad-leaved semi natural woodlands, marshy grassland, semi-improved neutral grassland and standing water.
- 4.10 Rackery Wood (LWS) is located approximately 1.7km to the north of the site boundary. This site covers approximately 1.8 hectares and is designated for areas of broad-leaved semi natural woodland.

Ancient Woodland

- 4.11 The COFNOD search returned seven ancient woodland sites surrounding the boundary of the site. Six of these are semi-natural ancient woodland sites and one on the southern border is restored ancient woodland site. This particular restored ancient woodland site stretches down to Gresford Lodge, south west of the quarry site. Further sites include ancient semi-natural woodland located 500m to the south of the quarry over the A483 this remains adjacent along the roadside from Marford down to Gresford Lodge.
- 4.12 To the north there is another small area of ancient semi-natural woodland 1km away from the site. In terms of the other woodland sites, COFNOD showed another 15 sites between 1km-2km away from Ballswood quarry.

Species Records

- 4.13 Records of protected and notable species which have been identified within a boundary of the site have been provided by COFNOD – The local environmental records centre for North Wales and the National Biodiversity Network (NBN).

Mammals

Bats

- 4.14 COFNOD returned a number of records within the 2km radius of the site for common pipistrelle (*Pipistrellus pipistrellus*), natterer's bat (*Myotis nattereri*), soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared Bat (*Plecotus auritus*). The closest bats found to the site boundary were two counts of unknown bat species (*Chiroptera*) along the southern boundary of the site.

- 4.15 NBN also returned records for common pipistrelle, natterer's bat, soprano pipistrelle and brown long-eared bat. However, the NBN search also returned records for Brandt's bat (*Myotis brandtii*) and lesser horseshoe bats (*Rhinolophus hipposideros*). These records were both located to the south of the site boundary in the Gresford urban area. The Brandt's bat record was dated from 2016 and the lesser horseshoe bat record was dated from 2017.

Otter (*Lutra lutra*)

- 4.16 COFNOD returned 15 records for otter within 2km of the site boundary, the closest of these records was 412m to the east of the site boundary. The rest of these records are concentrated along the River Alyn which dissects the 2km radius of the designated site.
- 4.17 The NBN returned 27 counts of Otter in the 2km boundary dated from 2000-2019.

Dormice (*Muscardinus avellanarius*)

- 4.18 Both NBN and COFNOD returned no records for dormice within 2km of the site boundary.

Badger (*Meles meles*)

- 4.19 COFNOD returned 27 records for badgers within the 2km site boundary. The closest of these records were three counts within the quarry boundary line, these dated back to 2002 and 1998.
- 4.20 NBN recorded 46 records for badgers within 2km of the site boundary. The majority of these records were located 1.5km to the south of the site boundary.

Water Vole (*Arvicola amphibious*)

- 4.21 COFNOD returned one record for water vole within 2km of the site boundary. This record was located 412m to the east of the site boundary and was dated from 2005.
- 4.22 NBN showed no results for water vole presence in the 2km site boundary.

Amphibians and Reptiles

Great Crested Newt (*Triturus cristatus*)

- 4.23 COFNOD returned three counts of great crested newts (GCN), all located 800m from the site boundary in the wildlife reserve. These records were dated from 2003 to 2005.
- 4.24 The NBN search returned over 700 records GCN located approximately 1.2km to the south of the site. A large number of these records were dated from 2019.

Reptiles

- 4.25 The COFNOD search returned records of four reptile species within 2km of the site boundary. These include common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*), adder and grass snake. For slow-worm, COFNOD returned 49 records within 2km of the site boundary. These records were dated between 2005 and 2014. The majority of these records were located approximately 0.8km to the south-east of the site boundary.
- 4.26 The COFNOD search returned six records for grass snake within 2km of the site boundary. These were dated between 1907 and 2015. The closest of these records was located approximately 0.8km to the south-east of the site boundary. This individual record was dated from 2015.
- 4.27 The COFNOD search returned three records for adder within 2km of the site boundary. These records were dated from 1907, 1970 and 2009. The closest of these records was located 1.4km to the south-west of the site boundary. This record was dated from 2009.
- 4.27.1 One record was returned for common lizard within 2k of the site boundary. This record was located approximately 0.9km to the south-east of the site boundary and was dated from 2011.
- 4.28 The NBN search also returned records for slow-worm, grass snake, adder and common lizard within 2km of the site boundary. These records were all returned from the same location located approximately 1.2km to the south of the site boundary.

Crustaceans

White-clawed crayfish

- 4.29 COFNOD and NBN returned no records for white-clawed crayfish within the 2km of the site boundary.

Birds

- 4.30 COFNOD returned a large number of different bird species within the 2km site boundary. A number of notable species was highlighted between Ballswood quarry and the Marford Quarry SSSI. Some of the species included: yellowhammer (*Emberiza citronella*), lapwing (*Vanellus vanellus*), skylark (*Alauda arvensis*), barn owl (*Tyto alba*), curlew (*Numenius arquata*), bullfinch (*Pyrrhula pyrrhula*), and willow warbler (*Phylloscopus trochilus*) and hen harrier (*Circus cyaneus*). Located approximately 1.2km to the north of the site boundary were a number of further notable species records, these include osprey (*Pandion haliaetus*), kestrel (*Falco tinnunculus*) and house sparrow (*Passer domesticus*).
- 4.31 NBN also returned a large number of bird species for this site, these records include species such as: yellowhammer, merlin (*Falco columbarius*), kestrel, great spotted woodpecker (*Dendrocopos major*), lesser spotted woodpecker (*Dendrocopos minor*), willow warbler, house sparrow and tree sparrow (*Passer montanus*).

Invertebrates

- 4.32 COFNOD returned a number of invertebrate species, many of these were linked to the Chwarel Marford Quarry the local wildlife nature reserve. Some of the species present included the emerald damselfly (*Lestes sponsa*) and the Adonis ladybird (*Hippodamia variegata*) which was found 350m from the site location to the west.

Invasive Species

- 4.33 COFNOD returned seven records for Japanese knotweed within 2km of the site boundary. The closest of these was located 0.8km to the north-east of the site boundary.
- 4.34 There were no records returned for giant hogweed within 2km of the site boundary.

5.0 SITE SURVEY FINDINGS

- 5.1 For the plan showing the habitats located within the site boundary, please see Appendix A. For all site photographs, please see Appendix B.

Habitats

Arable fields (JNCC Code J1.1)

- 5.2 The eastern boundary fields which form the proposed extension area are comprised of arable fields. These fields are typically planted with wheat, however they had been ploughed at the time of survey.
- 5.3 In addition, there is one area of previously restored arable field located in the south-east corner of the site boundary. This is located to the south of the River Alyn.

Boundary broad-leaved semi natural woodlands (JNCC Code A1.1)

- 5.4 There are three areas of broad-leaved semi natural woodland surrounding the northern boundary of the site and the southern boundary of the site.
- 5.5 The first area of woodland to the north of the existing quarry at the quarry boundary between the site and Gegin Lane. The species recorded within this woodland include ash (*Fraxinus excelsior*), pedunculate oak (*Quercus robur*), sycamore (*Acer pseudoplatanus*), cherry (*Prunus avium*), hawthorn (*Crataegus monogyna*) and silver birch (*Betula pendula*). Under-storey species present within this woodland include bramble (*Rubus fruticosus*), ivy (*Hedera helix*) and dog rose (*Rosa canina*).
- 5.6 The second area of woodland is located immediately to the south of the existing quarry plant site. This small area connects into the intact species poor hedgerow with trees. This woodland is dominated by sycamore. Other species recorded within this woodland include pedunculate oak, ash, hawthorn, rowan (*Sorbus aucuparia*) and silver birch. Under-storey species within this woodland include bramble, common nettle (*Urtica dioica*), ivy and dog rose.
- 5.7 The southern boundary broad-leaved semi natural woodland extends across the full extent of the existing quarry boundary. The species recorded within this site include pedunculate oak, ash, dog rose, sycamore, hawthorn and silver birch. Under-storey species recorded within this section include dog rose,

bramble, common nettle, lesser celandine (*Ficaria verna*) and dogs mercury (*Mercurialis perennis*).

Broad-leaved plantation woodland (JNCC Code A1.2)

- 5.8 There is one area of broad-leaved plantation woodland located in the north west- corner of the site, surrounding the boundary of the existing quarry plant site. This woodland habitat is dominated by copper beech (*Fagus sylvatica f. purpurea*). Other tree species recorded include, sycamore and silver birch. Under-storey species recorded including dog rose, bramble and common nettle.

Intact Hedgerow and trees (JNCC Code J2.3.2)

- 5.9 There are two intact hedgerows located within the site boundary, the first is located in the north-western corner of the site, near the existing plant site. This hedgerow connects into a small area of broad-leaved semi natural woodland. The species recorded within this hedgerow include hawthorn, ash, silver birch and sycamore.
- 5.10 The second hedgerow is located in the north-eastern corner of the site, immediately to the north of the arable fields. This hedgerow is dominated by hawthorn. Other species present within the hedgerow include dog rose and ivy. There were a number of ground species located at the base of hedgerow between the hedge and the arable field.

Species- rich Defunct Hedgerow with trees (JNCC Code J3.2)

- 5.11 There is one defunct hedgerow with trees located in the south-east corner of the site. This hedgerow is dominated by hawthorn. Other species recorded within this hedgerow include hawthorn, crack willow (*Salix fragilis*), blackthorn (*Prunus spinosa*), hazel (*Corylus avellane*) and sycamore.

Scattered Scrub (JNCC Code A2.2)

- 5.12 There are three areas of scattered scrub located within the centre of the existing quarry. The first is located along the northern boundary of the site and the second is located in the centre of the quarry to the north of the quarry lagoons. These scattered scrub areas are mainly comprised of gorse (*Ulex europaeus*), with occasional areas of bramble.
- 5.13 There is also one area of scattered gorse located surrounding the boundary of the broad-leaved semi natural woodland near the southern boundary.

Tall ruderal soil bunds (JNCC Code C3.1)

- 5.14 There are a series of soil bunds comprised of tall ruderal vegetation located within the existing quarry. These bunds are comprised of creeping thistle (*Cirsium arvense*), spear thistle (*Cirsium arvense*), rosebay willowherb (*Chamerion angustifolium*), common nettle, bramble, green alkanet (*Pentaglottis sempervirens*) and bracken (*Pteridium aquilinum*).

Species poor semi-improved grassland (JNCC Code B6)

- 5.15 There are two small areas of species poor semi-improved grassland located within the site boundary. The first is located along the norther site boundary and is surrounded by the northern boundary woodland and scattered scrub with the existing quarry located immediately to the south. The species recorded within this grassland include perforate St John's wort (*Hypericum perforatum*), yarrow (*Achillea millefolium*) perennial ryegrass (*Lolium perenne*), cocksfoot (*Dactylis glomerata*), false oat-grass (*Arrhenatherum elatius*), common evening primrose (*Oenothera biennis*), herb Robert (*Geranium robertianum*), birds-foot trefoil (*Lotus corniculatus*) and lesser trefoil (*Trifolium dubium*).
- 5.16 The second area of species poor semi-improved grassland is a small grassland strip located between the eastern boundary arable fields and the existing quarry. The species recorded within this grassland include common nettle, cleavers (*Galium aparine*), red-dead nettle (*Lamium purpureum*), common mouse-ear (*Cerastium fontanum*), lords and ladies (*Arum maculatum*), cow parsley (*Anthriscus sylvestris*), cocksfoot, common field speedwell (*Veronica persica*), green alkanet, lesser celandine and burdock (*Arctium lappa*).

Improved grassland (JNCC Code

- 5.17 There was one area of improved grassland located in the south-east corner of the site. This species recorded within this grassland include lesser celandine, perennial ryegrass, common nettle, white clover (*Trifolium repens*), spear thistle, creeping thistle, meadow buttercup (*Ranunculus acris*), common dandelion (*Taraxacum officinale*), common field speedwell and annual meadow grass (*Poa annua*).

Waterbodies (JNCC Code G1)

- 5.18 At the time of survey, there were seven waterbodies located within the existing quarry. These were all large lagoons associated with the existing quarry workings. Species recorded surrounding these waterbodies include goat willow (*Salix caprea*) and crack willow.

Quarry (JNCC Code J4)

- 5.19 The majority of the site is comprised of the existing quarry, this is largely comprised of bare earth, waterbodies and the plant site located near the northern site boundary. The plant species recorded within the quarry include St John's wort, butterfly bush (*Buddleja davidii*) and ox-eye daisy (*Leucanthemum vulgare*).

Running Water (JNCC Code G2.2)

- 5.20 The River Alyn is located along the southern boundary and runs within an area of broad-leaved woodland. This stream at the time of survey was slow-flowing and was approximately 2m wide.

Scattered trees (JNCC Code A3.1 and A3.2)

- 5.21 There are a total of six scattered trees located within the existing quarry and within the proposed eastern extension area. These trees are:
- Horse chestnut (*Aesculus hippocastanum*) – Located at Grid Reference SJ345562
 - Sycamore – Located at Grid Reference SJ349568
 - Pedunculate oak – Located at Grid Reference SJ350567
 - Large leaved Lime – Located at Grid Reference SJ350567
 - Scot's Pine and hawthorn – Located at Grid Reference SJ349566

Protected species

Birds

- 5.22 The boundary woodlands, scattered scrub, scattered trees, waterbodies and semi improved grassland provide suitable breeding and foraging habitat for a variety of common and widespread breeding bird species. In addition, the arable

fields in the proposed extension area also provide suitable breeding and foraging habitat for a variety of farmland bird species.

- 5.23 A number of bird species were identified during the walkover survey, these include: pied wagtail (*Motacilla alba yarrellii*), mallard (*Anas platyrhynchos*), wren (*Troglodytes troglodytes*), dunnoek (*Prunella modularis*), blue tit (*Cyanistes caeruleus*), robin (*Erithacus rubecula*), blackbird (*Turdus merula*), chaffinch (*Fringilla coelebs*), chiffchaff (*Phylloscopus collybita*) and blackcap (*Sylvia atricapilla*).

Bats

Foraging

- 5.24 The majority of the site is comprised of the existing quarry and arable fields which are considered to provide negligible foraging habitat for bats. The boundary broad-leaved woodland and hedgerows however are considered to provide small areas of optimal foraging habitat for bats.

Roosting

- 5.25 There are four trees within the site that are considered to provide suitable roosting potential for bats. Please see details below:
- Horse chestnut – moderate suitability for roosting bats;
 - Sycamore – moderate suitability for roosting bats;
 - Pedunculate oak – moderate suitability for roosting bats; and
 - Large leaved Lime – moderate suitability for roosting bats.

Reptiles

- 5.26 No reptiles were found within the site during the survey. Badgers The semi-improved grasslands within the site however, are considered to provide suitable foraging habitat for reptiles. In addition, the area of semi improved grassland along the northern boundary is located on a south facing bank. This area is considered to provide optimal habitat for basking reptiles.
- 5.27 In addition, there is also an area of log piles located at Grid Reference SJ350563. These are located in the corner of the adjacent arable fields. These log piles provide suitable basking and shelter for a variety of reptile species.

- 5.28 There were no badger setts identified within the site during the walkover survey. However, there were two badger la trines identified along the boundary of the arable fields in the east of the site. These two la trines were located close together at Grid Reference SJ350564.

Water vole

- 5.29 There was no evidence of water voles recorded within the onsite waterbodies within the existing quarry. The banks of the quarry lagoons lack dense vegetation and suitable structure for water voles to create burrows. In addition, the waterbodies within the site are considered unsuitable for foraging water voles due to the lack of water course connectivity also due to the lack of vegetation.

Otter

- 5.30 There was no evidence of otters recorded within the site during the walkover survey. In addition, the waterbodies within the site lack fish and crustacean species and therefore are considered unsuitable for foraging otters.

Dormice

- 5.31 There were no records returned for dormice within 2km of the site boundary. In addition, the majority of the habitats within the site are considered unsuitable to support dormice.
- 5.32 The northern boundary broad-leaved semi natural woodland and intact species-poor hedgerows are considered to provide sub-optimal habitat for dormice. The northern boundary woodlands lack a diverse under-storey structure and both the woodlands and hedgerows are fragmented from the wider surrounding suitable habitats. The southern boundary woodland also lacks a diverse under-storey structure, however the connectivity into the wider surrounding area is good. The southern boundary woodland however, is to be retained during the extent of the works and therefore it is assessed that there will be no impact on dormice during the extent of the works.

Amphibians

Great Crested Newt

- 5.33 The preliminary ecological appraisal survey identified seven waterbodies within the site. In addition, there was one additional waterbody located approximately 200m to the west of the site boundary. All of the waterbodies located within the

existing quarry were active quarry lagoons. Of the quarry lagoons, ponds 1,2 and 3 had been established for a period of time and therefore vegetation had begun to establish within the pond. Ponds 5,6 and 7 were assessed as silt lagoons. In addition, pond 8 was a newly created pond that had been recently excavated. Pond 4 is located 200m to the west of the site boundary is a large pond, surrounded by willow and alder tree species.

5.34 As all these ponds are present within 500m of the site (maximum dispersal distance for great crested newts), Habitat Suitability Index (HSI) assessments were carried out for each of the ponds. Please see Table 1 below for the full HSI assessment details.

5.35 Table 1 HSI calculations for each waterbody assessed and their suitability for GCN

Waterbody	HSI Score	Suitability
Pond 1 (Grid Reference SJ348565)	0.43	Poor
Pond 2 (Grid Reference SJ349564)	0.43	Poor
Pond 3 (Grid Reference SJ350562)	0.7	Average
Pond 4 (Grid Reference SJ344559)	0.42	Poor
Pond 5 (Silt Lagoon) (Grid Reference SJ348563)	0.43	Poor
Pond 6 (Silt Lagoon) (Grid Reference SJ348563)	0.43	Poor
Pond 7 (Silt Lagoon) (Grid Reference SJ348563)	0.43	Poor
Pond 8 (Grid Reference SJ346560)	0.43	Poor

5.36 The above table indicates that Pond 3 has an average suitability for GCN. This was assessed as this pond is closer to the southern boundary broad-leaved semi natural woodland providing higher quality terrestrial habitat for GCN. In addition, this pond contained a higher percentage of macrophyte cover providing suitable egg laying habitat for GCN.

5.37 Ponds 1, 2,4,5,6, 7 and 8 were all considered to provide a poor suitability for GCN. These ponds were all within the centre of the quarry workings and therefore the surrounding terrestrial habitat was poor. In addition, the macrophyte cover and water quality of these waterbodies was also assessed as poor.

Invasive species

- 5.38 There were no invasive plant species identified within the site during the ecological walkover survey.

6.0 LIKELY IMPACTS

Habitats

6.1 The survey identified ecological features within the site boundary. The site consists of the following habitats:

- Broad-leaved semi natural woodlands
- Species poor semi- improved grassland
- Species poor intact hedgerow with trees
- Arable fields
- Scattered scrub
- Tall ruderal vegetation
- Scattered Trees

6.2 It should be noted that all previously restored habitats located in the south-western corner of the site boundary are to be retained during the extent of the works. This will include the retention of broad-leaved semi natural woodland, species rich defunct hedgerow, improved grassland, scattered scrub and the River Alyn corridor.

Statutory Designated Sites

6.3 There are three statutory designated sites located within 2km of the site boundary. It is not anticipated that the proposed works will have any impact on any of these Statutory Designated Sites.

Non-Statutory Designated Sites

6.4 The COFNOD search returned records for seven non-statutory designated sites within 2km of the site boundary. The closest of these is the Ballswood Quarry and Cockpit Wood (LWS) which covers the existing quarry and the wider extending broad-leaved semi natural woodlands.

6.5 The Ballswood Quarry and Cockpit Wood (LWS) is designated as an active Quarry site with large areas of grassland and scrub developed on old quarry workings. All areas of previously restored grasslands do not fall within the site boundary. In addition, the boundary woodlands surrounding the site are to be retained during the extent of the works. Therefore, it is not anticipated that the proposed works will have an impact on this LWS.

6.6 It is also not anticipated that the proposed works will have an impact on any of the other non-statutory designated sites within 2km of the site boundary.

Habitats

- 6.7 The proposed development has the potential to impact a small area of broad-leaved woodland, one species poor intact hedgerow with trees, tall ruderal vegetation and small patches of scattered scrub and semi-improved grassland. The area of woodland, hedgerow and grassland are all considered UK Bap Priority habitats.

Species

- 6.8 Development within the site has the potential to have a minor impact on bats, birds, reptiles and GCN. However, the majority of the habitats located within the existing quarry lack connectivity from the wider area due to ongoing quarry workings. In addition, the majority of the boundary habitats are to be retained during the extent of the works.
- 6.9 The large horse chestnut tree located within the existing quarry compound is to be removed during the proposed works. This tree has been assessed to provide a moderate suitability for roosting bats as there were a number of split limbs and cracks observed within the tree.
- 6.10 Further survey recommendations for protected species have been detailed in section 7 below.

Response to comments

- 6.11 The NRW comment states ' On the 22/06/2021, comments were received from NRW stating 'We have concerns that the proposed development, as submitted, will damage the features for which the Marford Quarry SSSI is of special interest, in particular the wild licorice. Chwarel Singret SSSI is geological and therefore not sensitive to the proposals, even though it is immediately outside the application site'.
- 6.12 The Marford Quarry SSSI is located over 500m from the site boundary and therefore due to this distance it is not anticipated that the proposed extension will have any additional impact than the quarry has in its current form. There will be no additional noise or dust issues that are likely to impact the SSSI nor will there be any impact of the direct removal of habitat. It should be noted that no wild licorice was recorded within the site during the surveys.
- 6.13 It is anticipated that restoration from the quarry will provide a long -term benefit for species such as wild licorice which can be introduced to the site as part of

the proposed restoration scheme. Marford Quarry is an example of how quarry restoration can be designed to benefit wildlife in the long term.

7.0 FURTHER SURVEY REQUIREMENTS

- 7.1 Due to the impacts identified in Section 6, protected species surveys are recommended for foraging/roosting bats, breeding birds, wintering birds, GCN, water voles and otters.

Bats

Roost

- 7.2 One mature horse chestnut tree was located within the existing quarry which is to be removed during the proposed works. Therefore, it is recommended that bat roost surveys are undertaken in order to identify the presence or absence of bats within this tree. This will involve two emergence/ re-entry survey visits, with at least one of these surveys conducted at as a dawn re-entry survey. Bat Surveys can be conducted from May- September.

Activity

- 7.3 It is assessed that the overall site presents a negligible suitability for foraging bats as the majority of the site is comprised of existing quarry and open arable fields. However, as there are a number of optimal habitats located around the site boundary, it is recommended that a reduced survey effort of bat activity surveys are undertaken in order to assess what bat species may be present across the site boundary.
- 7.4 As the application is due to be submitted during the summer months, it is recommended that one bat activity survey is undertaken in spring and two surveys are undertaken in summer. Further bat activity will additionally be recorded during the roost surveys to be undertaken on the horse chestnut tree within the site compound.

Birds

- 7.5 The eastern extension has the potential to impact a number of farmland bird species. Therefore, it is recommended that two breeding bird surveys are conducted on the site. These should be conducted between April-June with the first survey conducted by mid-may. These surveys should also be at least two weeks apart.

Reptiles

- 7.6 The desk study identified records for four species of reptile within 2km of the site boundary. The species records were for grass snake, common lizard, adder and slow-worm. Therefore, it is recommended that reptile surveys are conducted. This will involve placing approximately 50 refugia mats within the site and then conducting 7 individual surveys.

Great Crested Newts

- 7.7 All waterbodies within 500m of the site boundary were assessed using the Habitat Suitability Index (HSI) assessment criteria for GCN. Of the seven waterbodies, pond 3 was assessed to provide an average suitability for GCN. Ponds 1,2,4,5,6 and 7 were all assessed to provide a poor suitability for GCN.
- 7.8 As pond 3 was assessed as providing an average suitability for GCN, it is recommended that this pond is surveyed using the GCN environmental DNA test.
- 7.9 Ponds 5 and 6 were active silt lagoons located within the existing quarry. In addition, pond 7 had been recently created within the main quarry void of the existing quarry. It is considered highly unlikely that GCN will be present within these waterbodies.
- 7.10 For ponds 1,2 and 4, although they were assessed as providing a poor suitability for GCN, these waterbodies have been undisturbed for a period of time and aquatic vegetation has begun to form in these waterbodies. It is therefore recommended that GCN environmental DNA test are undertaken on these waterbodies in order to identify the presence/absence of GCN. If GCN are found during these surveys, a further six surveys should be made to ascertain population size.

8.0 CONCLUSIONS AND PROVISIONAL MITIGATION MEASURES

Mitigation measures

- 8.1 The ecological impact hierarchy requires that all steps are taken to avoid adverse impacts to habitats and species. Only where impacts cannot be avoided should steps be taken to mitigate for any losses within the scheme boundary. In cases where all options for on-site mitigation have been exhausted, offsite compensation measures can be considered. The following mitigation recommendations have been proposed to minimise the potential ecological impacts during construction and redevelopment of the site. Additional species-specific mitigation recommendations will be provided following the completion of the additional protected species surveys.

Habitats

- 8.2 It is recommended that suitable stand-off distances are observed in areas of where boundary woodlands are to be retained. It is recommended that 5m is observed from the northern boundary woodlands and a 10m stand-off distance is observed from the southern boundary woodlands.
- 8.3 The restoration proposals are to include the planting of broad-leaved semi natural woodland and a number of hedgerows across the site. It is recommended that the woodlands include the planting of woodland species similar to what is present within the existing boundary woodlands. Hedgerow planting should contain a range of native species including hawthorn, blackthorn and hazel with small quantities of holly, guelder rose (*Viburnum opulus*) dog rose, and dogwood (*Cornus sanguinea*).

9.0 SUMMARY

- 9.1 The proposed development involves the 3 extensions which are within the permitted red line boundary of the existing Ballswood Quarry, although outside the extraction area on the approved plans. Access to the site for the purpose of extending mineral extraction from the existing quarry to the west would best be supplied through the existing quarry site. The proposed development will release currently sterilised mineral within the permitted planning boundary of the site.
- 9.2 There are three statutory designated sites located within 2km of the site boundary. It is not anticipated that the proposed works will have any impact on any of these Statutory Designated Sites.
- 9.3 There are seven non-statutory designated sites within 2km of the site boundary. The closest of these is the Ballswood Quarry and Cockpit Wood (LWS) which covers the existing quarry and the wider extending broad-leaved semi natural woodlands. It is not anticipated that the proposed works will have an impact on this LWS as the habitats within this designation are to be retained during the extent of the works. In addition, it also not anticipated that the proposed works will have an impact on any of the other non-statutory designated site within 2km of the site boundary.
- 9.4 Habitats present within the site include broad-leaved semi natural woodland, broad-leaved plantation woodland, semi-improved species poor grassland, scattered scrub, tall ruderal vegetation, scattered trees and arable fields. There are also areas of bare earth and standing water associated with the existing quarry workings.
- 9.5 A number of specialist protected species surveys have been recommended within section 7. The recommended surveys include:
- GCN eDNA Surveys;
 - Breeding bird surveys;
 - Bat activity surveys;
 - Bat roost survey; and
 - Reptile surveys.

- 9.6 In response to the comments from NRW, it is not anticipated that the proposed works will have any impacts to Marford SSSI due to the proximity from the proposed works. Furthermore, it is not anticipated that the proposals will have any impact on wild Licorice as this species was not recorded within the site during the surveys.

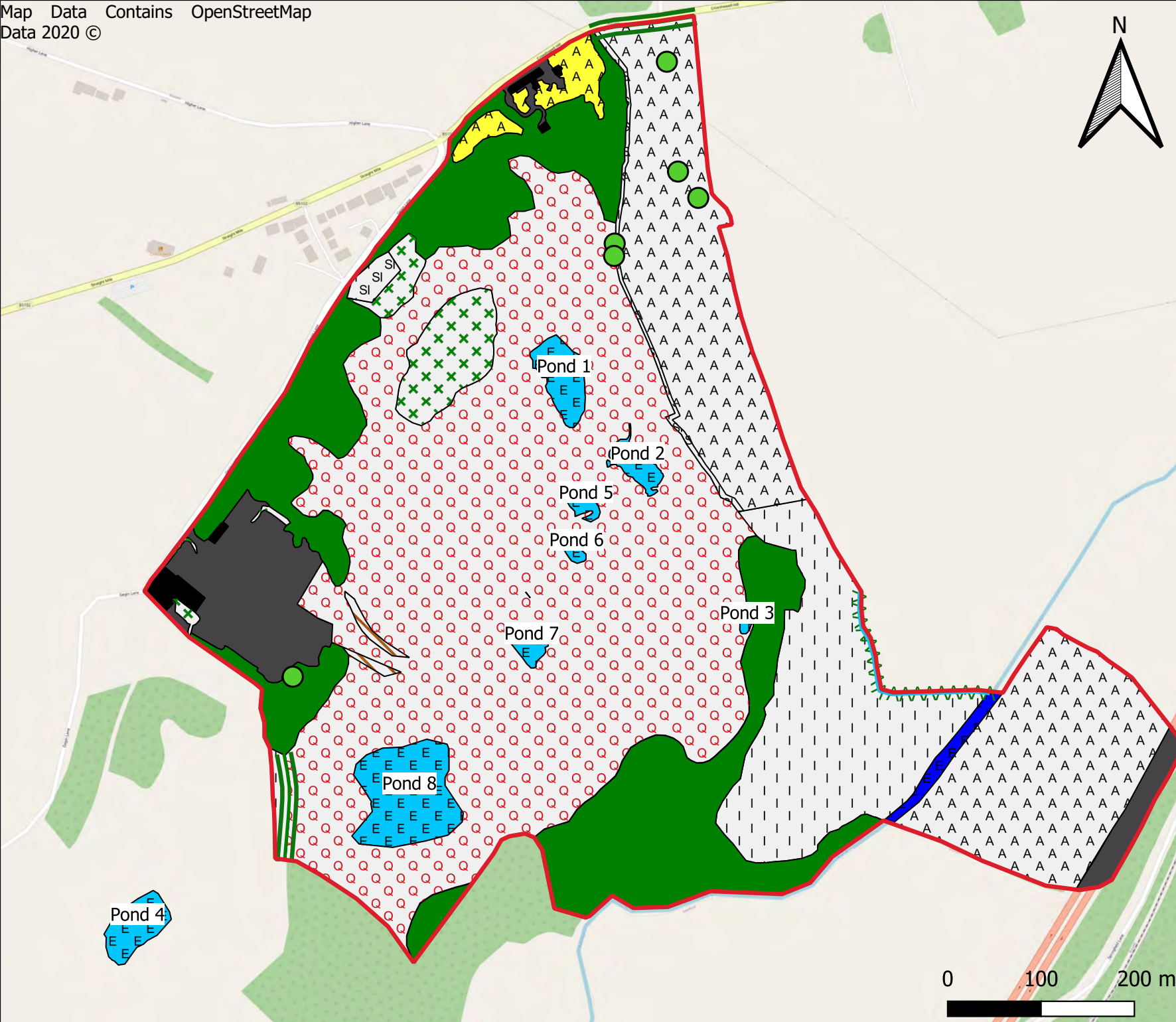
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Appendix A

Phase 1 Habitat Map



LEGEND

— Site Boundary

Phase 1 Line Habitats

— J2.1.2 - Intact hedge

— J2.2.1 - Defunct hedge - SR

— G1.1 Standing water - EU

● Scattered Tree

Phase 1 Habitats

■ A1.1.1 - BL Woodland/SN

■ A2.2 - Scrub - scattered

■ B4 - Improved grassland

■ B6 - Poor semi-improved grassland

■ C3.1 - Tall ruderal

■ G1.1 - Standing water - EU

■ G2.1 - Running water - EU

■ I2.1 - Quarry

■ J1.1 - Arable

■ J1.2 - Amenity grassland

■ J3.6 - Buildings

■ Hardstanding

OpenStreetMap

Heatons
Planning Environment Design

PROJECT

Ballswood Quarry

DRAWING TITLE

PEA Phase 1 Habitat Map

DATE

AUG 2020

REFERENCE

KEDL-003-M (ED.001)

SCALE

See Map

STATUS

FINAL



Appendix B

Site Photographs



Plate 1. A view of the existing Ballswood Quarry



Plate 2. A view of scattered scrub and broad-leaved semi natural woodland.



Plate 3. A view of the existing quarry and adjacent arable fields.



Plate 4. A view of the of the hedgerow located to the west of the existing plant site.



Plate 5. A view of Pond 4.



Plate 6. A view of the horse chestnut located within the existing quarry plant site.



Plate 7. A view of the three trees to be retained near the eastern site boundary.



Plate 8. A view of the semi-improved grassland strip located between the arable field and existing quarry.



Plate 9. A view of tall ruderal vegetation within the existing quarry.



Plate 10. A view of Pond 8 within the existing quarry.



Plate 11. A view of the broad-leaved woodland near the existing plant site.

Appendix D – eDNA Survey Report



**Ballswood
Protected Species Surveys: eDNA Surveys**

in respect of

***Planning Application For 2No. Changes to the Limits of Extraction within
the Existing Permitted Planning Boundary of Ballswood Quarry***

for

Cheshire and North Wales Sand and Gravel Ltd

Prepared By

Heaton's

December 2021

Heaton's

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5. Response to NRW	13
6. Conclusions	15
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Appendix A – eDNA Ponds Map

Appendix B - eDNA Test Results

1.0 INTRODUCTION

- 1.1 Heatons have been commissioned by Cheshire and North Wales Sand and Gravel Limited to undertake surveys for great crested newts (GCN), at Ballswood Quarry (hereafter referred to as the site).
- 1.2 These surveys have been undertaken to fulfil the protected species survey requirements identified in the Preliminary Ecological Appraisal (PEA) completed in March 2020.
- 1.3 In June 2021, NRW provided a response to Wrexham County Borough Council for the variation of conditions 01 and 08 of planning permission P/2016/0110 to change limits of extraction within permitted quarry boundary.
- 1.4 In relation to GCN, the NRW response states ‘ However, in our view inadequate survey and assessment has been carried out in respect of Great Crested Newt (GCN). This is because only a sample of ponds that could potentially be occupied by the species have been surveyed and field survey methods used eDNA and Habitat Suitability Index (HSI) only.
- 1.5 GCN are protected under the Conservation of Habitats and Species Regulations 2017 (as amended). Paragraph 6.3.7 of Technical Advice Note 5: Nature Conservation and Planning (TAN5) states that your Authority should not grant planning permission without having satisfied itself that the proposed development either would not impact adversely on any GCN on the site or that, in its opinion, all three conditions for the eventual grant of a licence are likely to be satisfied. We consider that there currently is not enough information to assess potential effects of the proposal on any GCN that may be present at this site. Further information is required to assess the extent of adverse effects on GCN and any avoidance or mitigation measures required. We advise further survey. Following this, it must be demonstrated that the proposed development would not be likely to be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range. NRW would refer the Planning Authority to the letter from the Welsh Government to the Chief Planning Officer’s letter dated 1 March 2018 which advises Local Planning Authorities to attach an informative regarding licence requirements to all consents and notices where European Protected Species are likely to be present on site’.
- 1.6 A response to this comment has been provided within section 5 below.

Survey Scope

- 1.7 The scope of these surveys is to identify:
- the presence or likely absence of GCN within the Site;
 - the presence or likely absence of GCN within a 500m radius of the Site; and
 - the GCN population size, in areas where they found to be present.
- 1.8 GCN are afforded full protection under European and British law which makes it an offence to deliberately kill or injure individuals, damage their breeding or resting places, and/or obstruct access to their breeding or resting places.
- 1.9 Sufficient ecological information is required to fully inform the site design and the proposed works. Reports will enable the project to satisfy all current UK and European legal wildlife requirements, as well as national and local planning regulations. All public bodies have statutory obligations under the Natural Environment and Rural Communities Act 2006 to conserve and enhance biodiversity.

Site location and description

- 1.10 Ballswood Quarry is located at Gegin Lane, Wrexham, LL12 0NU, and is one of three active sand and gravel quarries in the County Borough of Wrexham (the others being Borrass Quarry and Hafod Quarry). Ballswood Quarry is operated by Cheshire and North Wales Sand and Gravel Ltd.
- 1.11 The majority of the site is comprised of existing quarry, with areas of scattered scrub and tall ruderal vegetation located around existing soil bunds. The boundaries of the existing quarry are comprised of broad-leaved semi natural woodland and hedgerows. There are a number of waterbodies located within the existing quarry. The eastern section of the site is comprised of arable fields and heavily grazed improved grassland.

Proposed Development

- 1.12 The proposed development involves the 2 extensions which are within the permitted red line boundary of the existing Ballswood Quarry, although outside the extraction area on the approved plans. Access to the site for the purpose of extending mineral extraction from the existing quarry to the west would best be



supplied through the existing quarry site. The proposed development will release currently sterilised mineral within the permitted planning boundary of the site.

2.0 LEGISLATION

2.1 GCN are a European protected species and are safeguarded by both the Wildlife and Countryside Act 1981 (as amended) and the Habitat Directive. Legislation extends protection to the animals, their eggs, their breeding sites and resting places and is a means by which sites can be protected from undesirable change.

- Actions that would cause an offence under UK law include:
- The deliberate capture, killing, disturbance or injury of GCN
- Damaging or destroying a breeding or resting place
- Obstructing access to their resting or sheltering places (deliberately or by not taking enough care)
- Possessing, selling, controlling or transporting live or dead newts, or parts of them
- Taking GCN eggs

2.2 The legislation covers each of the life stages including eggs, tadpoles and adult equally.

2.3 A European Protected Species (EPS) licence may be required from Natural Resources Wales (NRW) if the disturbance or damaging of their habitats (ponds and the land around ponds) cannot be avoided. An application can only be made once planning permission for the scheme has been approved. In order to obtain a protected species licence, the client must demonstrate that the work cannot be avoided and that there are no alternatives.

2.4 The protected species licence will also require a suitable protection and mitigation method to be adopted.

3.0 ASSESSMENT METHODOLOGY

Desktop Study

- 3.1 In order to inform the extended Phase 1 habitat survey and to compile background information on the site and its immediate surroundings, information on statutory and non-statutory designated sites within a 2km radius of the site was obtained from the COFNOD North Wales Environmental Information Service.
- 3.2 The COFNOD North Wales Environmental Information Service was also commissioned to undertake a data search for information on protected and notable species within the area. The National Biodiversity Network (NBN) database was also searched for protected species records within 2km of the site boundary.
- 3.3 Reference was also made to Ordnance Survey maps and aerial photography, which were used to determine the presence of open water and ponds in the area and to provide information on land use and habitat connectivity throughout the area.

Habitat Suitability Index

- 3.4 HSI Assessments were undertaken on all still water bodies within the site as well as those on the near side of major dispersal barriers (major roads, rivers and railways) within 500m of the site. This assessment was undertaken in order to establish the likelihood of great crested newts either breeding on the site or dispersing to the site in their terrestrial phase.
- 3.5 The HSI is a standard assessment method developed specifically to evaluate the habitat suitability for great crested newts. A series of factors must be considered. Each factor is assessed along suitability guidelines and allocated a value of between 0.1 (highly unsuitable) to 1.0 (highly suitable). The geometric mean of these values provides an overall suitability score for each pond. Although this is no substitute for a dedicated survey it does give an indication of whether such a survey is needed.
- 3.6 The HSI assessment was carried out on the waterbodies within the site during the extended Phase 1 habitat survey undertaken in March 2020. Previous HSI assessments had been undertaken on the site prior to the eDNA surveys being conducted in 2019. These assessments were then updated as part of the PEA Survey undertaken in March 2020.

Great Crested Newt eDNA Surveys

- 3.7 Environmental DNA analysis is a method of monitoring specific fauna within waterbodies. It is used to generate fast results for GCN presence or absence by collecting water samples from the waterbody margins. The analysis is used as it picks up fragments of DNA displaced in the water i.e. skin, faeces or animal fatalities. This method is most effective on waterbodies that hold a depth of 10cm or greater.
- 3.8 GCN eDNA surveys were undertaken on four waterbodies in total, these were Ponds 1,2,3 and 4.
- 3.9 The methodology used for surveying GCN eDNA is approved by Natural Resources Wales (NRW) following Defra funded research into the suitability of using this protocol to determine presence/likely absence of GCN. eDNA kits were supplied and analysed by SureScreen Scientifics.
- 3.10 The eDNA survey included taking 20 water samples from each of the four ponds spread out evenly around the pond edge. The samples were taken from both open water and vegetated areas, avoiding water less than 10cm deep. The water column was mixed gently avoiding stirring up sediment from the bottom.
- 3.11 All water samples were collected in a Whirl-Pak. bag and shaken for 10 seconds to mix evenly. Using a clear plastic pipette, 15ml of water was taken from the Whirl-Pak. bag, and transferred into each of six conical tubes containing 35ml preserving fluid (i.e. filling the tube to the 50ml mark). The samples were then transported to the laboratory for analysis.
- 3.12 GCN Surveys were undertaken in April 2019 by suitably licenced ecologist commissioned by Heaton.
- 3.13 These surveys were undertaken during the optimum survey season time between April and June following the methodology that of Froglife: Great Crested Newt Conservation Handbook.

Constraints

- 3.14 There were no constraints identified whilst carrying out the GCN eDNA Surveys.

4.0 RESULTS

Desk Study

Statutory Designated Sites

- 4.1 There are three Statutory Designated Sites located within 2km of the site boundary. The closest of these is the Chwarel Singret Special Site of Scientific Interest (SSSI). This is located approximately immediately adjacent to the quarry plant site and is designated for geological interest. There were no records for GCN for this site, however there was one record returned for smooth newt, (*Lissotriton vulgaris*).
- 4.2 The Marford Quarry SSSI is located 0.6km to the south-east of the site boundary. This site is designated for its large diversity of lepidopteran species which include a variety of nationally rare species. In addition to this there is a number of floral species indicative of a calcareous sand and gravel substrate, with a range of seral succession stages from bare ground to scrub/woodland. There were records for GCN returned within this designated site.
- 4.3 The Alyn waters Local Nature Reserve (LNR) is located approximately 1.9km to the south-west of the site boundary. The site is designated for its rich meadow habitat, variety of grassland, woodland. There were no records returned for GCN within this designated site.

Non-Statutory Designated Sites

- 4.4 The COFNOD search returned records for seven non-statutory designated sites within 2km of the site boundary. The closest of these is the Ballswood Quarry and Cockpit Wood Local Wildlife Site (LWS) which covers the existing quarry and the wider extending broad-leaved semi natural woodlands. There were no records for GCN returned for this (LWS).
- 4.5 The Marford Quarry SSSI site is also designated as a North Wales Wildlife Trust Reserve. This site returned records for GCN.
- 4.6 There were no records for GCN returned within any other non-statutory designated sites.

Species Records

- 4.7 COFNOD returned three counts of great crested newts (GCN), all located 800m from the site boundary in the Marford Quarry SSSI and LWS. These records were dated from 2003 to 2005.
- 4.8 The NBN search returned over 700 records GCN located approximately 1.2km to the south of the site. A large number of these records were dated from 2019.

Habitat Suitability Index

- 4.9 The PEA survey identified seven waterbodies within the site. In addition, there was one additional waterbody located approximately 200m to the west of the site boundary. All of the waterbodies located within the existing quarry were active quarry lagoons. Of the quarry lagoons, ponds 1,2 and 3 had been established for a period of time and therefore vegetation had begun to establish within the pond. Ponds 5,6 and 7 were assessed as silt lagoons. In addition, pond 8 was a newly created pond that had been recently excavated. The pond located 200m to the west of the site boundary is a large pond, surrounded by willow and alder tree species.
- 4.10 As all these ponds are present within 500m of the site (maximum dispersal distance for great crested newts), Habitat Suitability Index (HSI) assessments were carried out for each of the ponds. Please see Table 1 below for the full HSI assessment details.
- 4.11 Table 1 HSI calculations for each waterbody assessed and their suitability for GCN

Waterbody	HSI Score	Suitability
Pond 1 (Grid Reference SJ348565)	0.43	Poor
Pond 2 (Grid Reference SJ349564)	0.43	Poor
Pond 3 (Grid Reference SJ350562)	0.7	Average
Pond 4 (Grid Reference SJ344559)	0.42	Poor
Pond 5 (Silt Lagoon) (Grid Reference SJ348563)	0.43	Poor
Pond 6 (Silt Lagoon) (Grid Reference SJ348563)	0.43	Poor
Pond 7 (Silt Lagoon) (Grid Reference SJ348563)	0.43	Poor
Pond 8 (Grid Reference SJ346560)	0.43	Poor

- 4.12 The above table indicates that Pond 3 has an average suitability for GCN. This was assessed as this pond is closer to the southern boundary broad-leaved semi natural woodland providing higher quality terrestrial habitat for GCN. In addition, this pond contained a higher percentage of macrophyte cover providing suitable egg laying habitat for GCN.
- 4.13 Ponds 1, 2,4,5,6, 7 and 8 were all considered to provide a poor suitability for GCN. These ponds were all within the centre of the quarry workings and therefore the surrounding terrestrial habitat was poor. In addition, the macrophyte cover and water quality of these waterbodies was also assessed as poor.

eDNA Survey Results

- 4.14 GCN eDNA samples were undertaken on four waterbodies. Ponds 1,2 and 3 were located within the existing quarry and Pond 4 is located approximately 200m to the west of the site boundary.

Table 2 Results Summary of the eDNA Samples

GCN Pond Number	Distance from Site	Description of Waterbody	HSI Score	eDNA Result
1	Within the site boundary	Existing quarry lagoon, aquatic vegetation beginning to form	0.43	Negative
2	Within the site boundary	Existing quarry lagoon, aquatic vegetation beginning to form	0.43	Negative
3	Within the site boundary	Existing quarry lagoon, aquatic vegetation more established	0.7	Negative
4	250m to the South East of site boundary	Waterbody surrounded by woodland and fence. Limited aquatic vegetation suggesting the presence of fish	0.42	Negative

- 4.15 All waterbodies tested for GCN eDNA returned negative results. Please see Appendix A for the result certificate provided by Surescreen Scientifics.

5.0 RESPONSE TO NRW

- 5.1 *'However, in our view inadequate survey and assessment has been carried out in respect of Great Crested Newt (GCN). This is because only a sample of ponds that could potentially be occupied by the species have been surveyed and field survey methods used eDNA and Habitat Suitability Index (HSI) only.'*
- 5.2 *GCN are protected under the Conservation of Habitats and Species Regulations 2017 (as amended). Paragraph 6.3.7 of Technical Advice Note 5: Nature Conservation and Planning (TAN5) states that your Authority should not grant planning permission without having satisfied itself that the proposed development either would not impact adversely on any GCN on the site or that, in its opinion, all three conditions for the eventual grant of a licence are likely to be satisfied. We consider that there currently is not enough information to assess potential effects of the proposal on any GCN that may be present at this site. Further information is required to assess the extent of adverse effects on GCN and any avoidance or mitigation measures required. We advise further survey. Following this, it must be demonstrated that the proposed development would not be likely to be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range. NRW would refer the Planning Authority to the letter from the Welsh Government to the Chief Planning Officer's letter dated 1 March 2018 which advises Local Planning Authorities to attach an informative regarding licence requirements to all consents and notices where European Protected Species are likely to be present on site'.*
- 5.3 Heatons Response – The NRW guidance states that eDNA test results as evidence or absence of great crested newts are now accepted. 'We will accept this new technique to determine GCN presence or absence if samples are undertaken in strict accordance with the published technical advice note and they are collected by a suitably trained and experienced licensed GCN surveyor'. Therefore, by conducting the initial HSI assessment and then undertaking eDNA samples on suitable ponds, it is therefore considered that Heatons have followed the recommended guidance provided by NRW to assess the absence of GCN within the site boundary and also within the maximum dispersal zone for GCN.
- 5.4 As part of the breeding bird surveys conducted on the site, in order to further clarify the validity of the GCN eDNA surveys, egg searches were conducted within onsite waterbodies to identify if GCN eggs may be present. It should be

noted that no evidence of GCN was observed within any of the onsite waterbodies or within any waterbodies located 500m of the site. In addition, these waterbodies provided very limited aquatic vegetation that would be suitable for breeding GCN.

- 5.5 It is assessed that all surveyed waterbodies present within the site are highly unlikely to contain a population of GCN due to the intense quarrying activity immediately surrounding waterbodies. Any waterbodies present within the quarry that were not surveyed were either temporary lagoons or used as silt lagoons which are highly unlikely to contain the presence of GCN.
- 5.6 It is also assessed that the proposed works will have very limited impact on areas of suitable terrestrial habitat. Area A contains no suitable terrestrial habitat for GCN that are to be removed. For area B, the woodland is surrounded by intensively worked quarry directly to the south and south-west, the main quarry haul road to the east and the existing plant site to the north. It is considered that even in the case that a GCN population was present surrounding the site, then the more favourable area of terrestrial habitat would be located to the south which has a large area of broad-leaved woodland.
- 5.7 Within the 2021 survey season, further GCN eDNA testing was conducted on waterbodies located approximately 650m outside of the site boundary. It should be noted that these surveys were conducted on ponds with a higher suitability for GCN with less adjacent disturbance and with more surrounding areas of terrestrial habitat. All results from these tests were negative further suggesting the absence of a local population of GCN.

6.0 CONCLUSIONS

- 6.1 The results of the GCN eDNA test were negative for all four ponds testing within the site and within 500m of the site boundary. It is not anticipated that GCN would be present within any of the waterbodies scoped out as part of the HSI assessment.
- 6.2 In the unlikely case that any GCN are discovered during the works, then all works must be stopped immediately, and a suitably qualified ecologist must be informed so the issue can be dealt with accordingly.
- 6.3 As outlined in section 5 below in response to the comment from NRW, it is not anticipated that GCN are present within the site due to the active quarry nature of the site, the negative results from eDNA or due to the limited terrestrial habitat to be removed. It is considered that Heatons have followed the recommended guidance provided by NRW to assess the absence of GCN within the site boundary and also within the maximum dispersal zone for GCN.

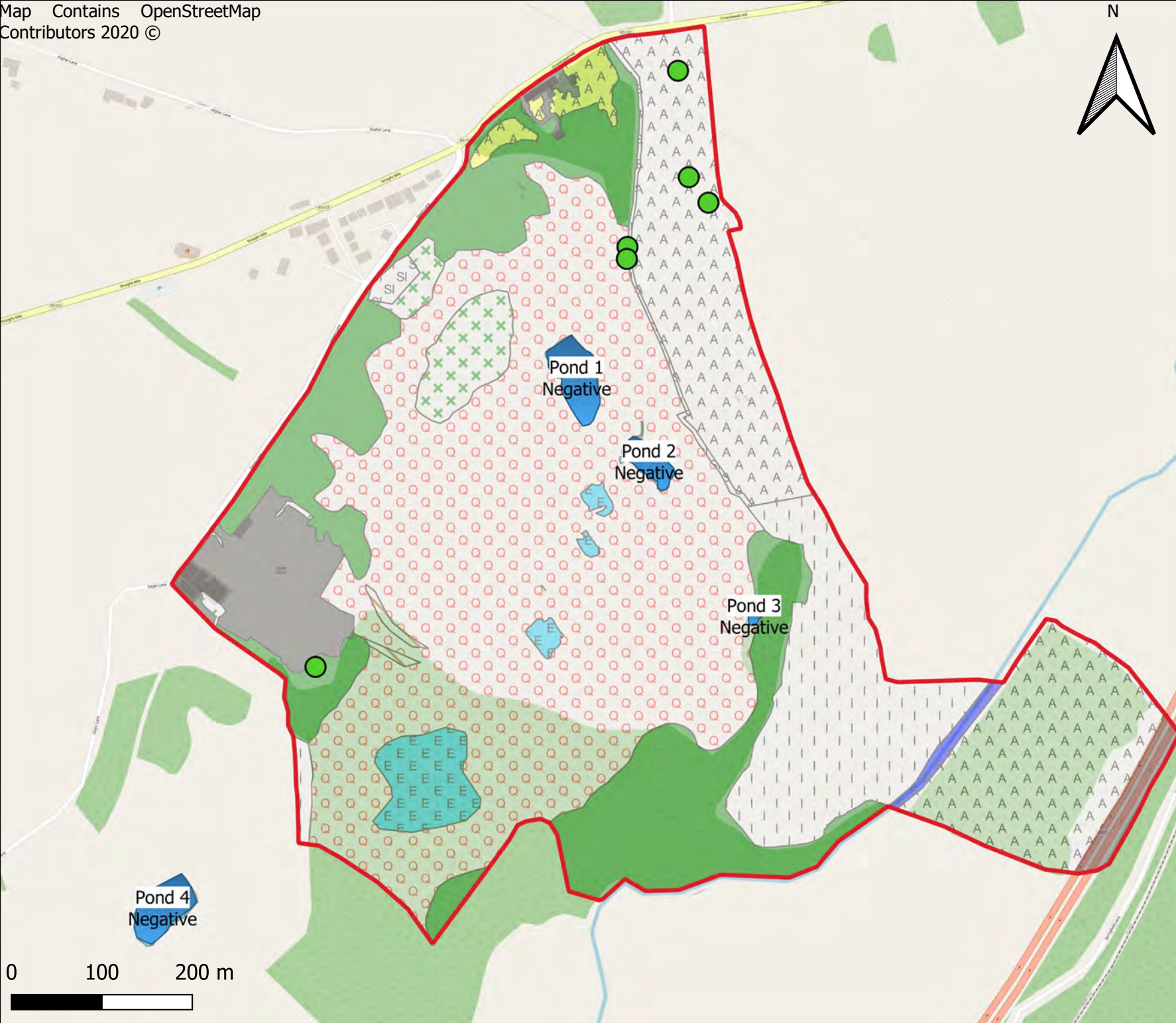
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Appendix A

eDNA Ponds Map



LEGEND

- eDNA Tested Ponds
- Site Boundary
- Scattered Tree

Phase 1 Habitats

- A1.1.1 - BL Woodland/SN
- ✕ A2.2 - Scrub - scattered
- B4 - Improved grassland
- Poor SI Grassland
- C3.1 - Tall ruderal
- G1.1 - Standing water - EU
- G2.1 - Running water - EU
- I2.1 - Quarry
- J1.1 - Arable
- J1.2 - Amenity grassland
- J3.6 - Buildings
- Hardstanding

OpenStreetMap

Heatons
Planning Environment Design

PROJECT
Ballswood Quarry

DRAWING TITLE
eDNA Tested Ponds Locations

DATE: Aug 2020 REFERENCE: KEDL-003-M (ED.005)

SCALE: See Map
STATUS: FINAL

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Appendix B

eDNA Test Results

Folio No: E4886
Report No: 1
Order No: ONO.124.M18
Client: PLEYDELL SMITHYMAN
Contact: Kelly Hopkins
Contact Details: kellyh@pleydellsmithyman.co.uk
Date: 07/05/2019

TECHNICAL REPORT

ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS

Date sample received at Laboratory: 02/05/2019
Date Reported: 07/05/2019
Matters Affecting Results: None

RESULTS

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
2090	Ballswood Quarry, pond 4	SJ3441 5594	Pass	Pass	Pass	Negative	0
2091	Ballswood Quarry, pond 1	SJ3487 5653	Pass	Pass	Pass	Negative	0
2094	Ballswood Quarry, pond 2	SJ3495 5643	Pass	Pass	Pass	Negative	0
2093	Ballswood Quarry, pond 3	SJ3507 5626	Pass	Pass	Pass	Negative	0

SUMMARY

When Great Crested Newts (GCN); *Triturus cristatus* inhabit a pond, they deposit traces of their DNA in the water as evidence of

their presence. By sampling the water, we can analyse these small environmental DNA (eDNA) traces to confirm GCN habitation, or establish GCN absence.

The water samples detailed below were submitted for eDNA analysis to the protocol stated in DEFRA WC1067 (Latest Amendments). Details on the sample submission form were used as the unique sample identity.

RESULTS INTERPRETATION

Lab Sample No.- When a kit is made it is given a unique sample number. When the pond samples have been taken and the kit has been received back in to the laboratory, this sample number is tracked throughout the laboratory.

Site Name- Information on the pond.

O/S Reference - Location/co-ordinates of pond.

SIC- Sample Integrity Check. Refers to quality of packaging, absence of tube leakage, suitability of sample (not too much mud or weed etc.) and absence of any factors that could potentially lead to results errors. Inspection upon receipt of sample at the laboratory. To check if the Sample is of adequate integrity when received. Pass or Fail.

DC- Degradation Check. Analysis of the spiked DNA marker to see if there has been degradation of the kit since made in the laboratory to sampling to analysis. Pass or Fail.

IC- Inhibition Check- PCR inhibitors can cause false results. Inhibitors are analysed to check the quality of the result. Every effort is made to clean the sample pre-analysis however some inhibitors cannot be extracted. An unacceptable inhibition check will cause an indeterminate sample and must be sampled again.

Result- NEGATIVE means that GCN eDNA was not detected or is below the threshold detection level and the test result should be considered as no evidence of GCN presence. POSITIVE means that GCN eDNA was found at or above the threshold level and the presence of GCN at this location at the time of sampling or in the recent past is confirmed. Positive or Negative.

Positive Replicates- To generate the results all of the tubes from each pond are combined to produce one eDNA extract. Then twelve separate analyses are undertaken. If one or more of these analyses are positive the pond is declared positive for the presence of GCN. It may be assumed that small fractions of positive analyses suggest low level presence but this cannot currently be used for population studies. In accordance with Natural England protocol, even a score of 1/12 is declared positive.

METHODOLOGY

The laboratory testing adheres to strict guidelines laid down in WC1067 Analytical and Methodological Development for Improved Surveillance of The Great Crested Newt, Version 1.1

The analysis is conducted in two phases. The sample first goes through an extraction process where all six tubes are pooled together to acquire as much eDNA as possible. The pooled sample is then tested via real time PCR (also called q-PCR). This process amplifies select part of DNA allowing it to be detected and measured in 'real time' as the analytical process develops. qPCR combines PCR amplification and detection into a single step. This eliminates the need to detect products using gel electrophoresis. With qPCR, fluorescent dyes specific to the target sequence are used to label PCR products during thermal cycling. The accumulation of fluorescent signals during the exponential phase of the reaction is measured for fast and objective data analysis. The point at which amplification begins (the Ct value) is an indicator of the quality of the sample. True positive controls, negatives and blanks as well as spiked synthetic DNA are included in every analysis and these have to be correct before

any result is declared so they act as additional quality control measures.

The primers used in this process are specific to a part of mitochondrial DNA only found in GCN ensuring no DNA from other species present in the water is amplified. The unique sequence appropriate for GCN analysis is quoted in DEFRA WC 1067 and means there should be no detection of closely related species. We have tested our system exhaustively to ensure this is the case in our laboratory. We can offer eDNA analysis for most other species including other newts.

Analysis of eDNA requires scrupulous attention to detail to prevent risk of contamination. Kits are manufactured by SureScreen Scientifics to strict quality procedures in a separate building and with separate staff, adopting best practice from WC1067 and WC1067 Appendix 5. Kits contain a 'spiked' DNA marker used as a quality control tracer (SureScreen patent pending) to ensure any DNA contained in the sampled water has not deteriorated in transit. Stages of the DNA analysis are also conducted in different buildings at our premises for added security.

SureScreen Scientifics Ltd also participate in Natural England's proficiency testing scheme and we also carry out inter-laboratory checks on accuracy of results as part of our quality procedures.

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End Of Report
