

File Note: Reptile Surveys



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| Site name | Newlands Road |
| Location | Cardiff |
| Date | 10 th June 2020 |
| OS grid ref. | ST 23617 79460 |

Background

Môr Hafren Bio Power are proposing to build a £150 million Energy Recovery Facility (Energy from Waste) at a site located off Newlands Road in Wentloog, Cardiff (nearest postcode: CF3 2EU, hereafter referred to as ‘the site’). See Appendix 1. It is understood that a previous planning application (09/00246/E) for the site was granted on 23rd November 2009 for the “*construction of an integrated waste management facility incorporating autoclave technology, materials recycling and combined heat and power generation, ancillary offices and weighbridge office, and associated roads, car parking and landscaping.*”

An Ecology Chapter of an Environmental Impact Assessment (EIA) was prepared in February 2009 by Ardeola Environmental Services. An assessment of the habitats on site and their potential for use by protected species was undertaken in February 2008. As a consequence, reptiles were identified as a possible constraint and relevant surveys were undertaken in 2008.

A low population of grass snake (*Natrix helvetica*) was recorded on site during the previous suite of baseline surveys that informed the ecology assessment (Ardeola Environmental Services, 2009). The surveys were conducted between July and September 2008 with a peak count of three adult grass snake recorded on 19th August 2008. The implementation of a reptile mitigation strategy was recommended to ensure that reasonable effort was taken to safeguard reptiles from intentional or reckless harm and avoid a breach of the Wildlife and Countryside Act 1981 (as amended).

A walkover survey was undertaken in 2014 by Godler Associates (14514190588.502/B.1) to update the previous EclA and apply for an extension to the time limit on the extant permission. Godler Associates concluded that the previous assessment remained valid and recommended trapping and relocation of any grass snakes from the site, which included construction of a reptile fence to prevent any recolonisation of the site.

Resource and Environmental Consultants Ltd (REC) undertook an ecological assessment of the site in 2019. Following previous assessments and conclusions regarding reptiles, REC considered the site to have high potential for reptiles due to suitable habitat on site, connectivity to the railway corridor to the north of the site and the known historical records of reptiles in the area. REC also noted that the existing reptile exclusion fencing on site had been destroyed and damaged extensively, and considered it likely that reptiles had since recolonised the site.

Bradley Murphey Design (BMD) undertook a walkover survey of the site in March 2020 to identify any potential changes in the baseline ecological situation associated with the site since the previous survey undertaken by REC (2019). BMD had no changes to the conclusions produced by REC and recommended that further surveys were undertaken to ascertain the current use and distribution of reptiles across the site. Therefore, in April 2020, BMD commissioned ADAS to undertake reptile surveys on the site.

Methodology

The survey methodology was in accordance with best practice guidelines as published by Froglife (1999). The Froglife guidance suggests that a density of 5-10 refuges per hectare provides sufficient coverage to detect reptiles but more refuges will increase the chances of finding reptiles. Therefore, 25 reptile refugia 'mats' (0.5m x 0.5m pieces of roofing felt) were placed in areas of suitable reptile habitat on site (total area of 1.67ha) on 22nd April 2020 to increase confidence in the survey result.

The reptile refugia 'mats' were given 6 days to 'bed in' prior to commencing surveys. This was considered adequate due to the poor condition of the site as it had been heavily poached/grazed by horses and the majority of the site was bare ground. See site photographs in Appendix 2.

Seven reptile surveys were carried out between April and May 2020 (including 28th of April and 1st, 5th, 13th, 15th, 18th and 27th of May) by ADAS ecologists Emmanuelle Amiral BSc (Hons) MCIEEM and Stephanie Cox BSc (Hons) ACIEEM. On each survey, the surveyor walked slowly around the site and checked the refugia and any other natural refugia, such as the damaged reptile fencing and debris for reptiles. The number, sex and species of any reptiles found was recorded. All seven reptile surveys

were undertaken at appropriate times of day and under suitable weather conditions. Details of the weather conditions for each survey are presented in Table 1 below.

Table 1: Reptile survey dates and weather conditions at Newlands Road, Cardiff

| Survey Number | Date | Temperature Start / End (°C) | Cloud cover (%) | Beaufort Scale | Ground Condition |
|---------------|------------|------------------------------|-----------------|----------------|------------------|
| 1 | 28/04/2020 | 14 / 14 | 80 | 2 | Dry |
| 2 | 01/05/2020 | 14 / 14 | 35 | 4 | Dry |
| 3 | 05/05/2020 | 16 / 16 | 55 | 2 | Dry |
| 4 | 13/05/2020 | 13 / 13 | 60 | 4 | Dry |
| 5 | 15/05/2020 | 16 / 16 | 10 | 2 | Dry |
| 6 | 18/05/2020 | 17 / 17 | 80 | 4 | Dry |
| 7 | 27/05/2020 | 17 / 17 | 30 | 2 | Dry |

From the reptile results, a basic evaluation of the population size and importance of the site was calculated using the Key Reptile Site Register, a mechanism provided by Froglife (1999). It has been designed to identify and promote the safeguarding of important reptile sites, with outstanding assemblages being the guiding principle in judging sites. To qualify for the Key Reptile Site Register, the site must meet at least one of the following criteria:

- Supports 3 or more reptile species;
- Supports 2 snake species;
- Supports an exceptional population of 1 species (see Table 2 below);
- Supports an assemblage of species scoring at least 4 (see Table 2 below); and
- Does not satisfy any of the above but which is of particular regional importance due to local rarity.

Table 2: Key Reptile Site Register Population Scores (Froglife, 1999)

| Species | Low Population | Good Population | Exceptional Population |
|---------------|----------------|-----------------|------------------------|
| Adder | <5 | 5-10 | >10 |
| Grass Snake | <5 | 5-10 | >10 |
| Common Lizard | <5 | 5-20 | >20 |
| Slow-worm | <5 | 5-20 | >20 |

*Figures in the table refer to maximum number of adults seen by observation and/or under refugia (placed at a density of up to 10 per hectare, by one person in one day).

Limitations

During the reptile surveys, the site was heavily disturbed by horses that were occupying the site. However, the horses did not interfere with or move any reptile 'refugia' mats.

The existing damaged reptile exclusion fencing had been left unmanaged for several years. Some areas of this fencing were deeply bedded into the ground. Where possible, surveyors lifted the fencing to inspect the area for reptiles. However, this was not possible in all areas of the site.

Results

One species of reptile was recorded at the site during the seven survey visits; one juvenile common lizard (*Zootoca vivipara*) was recorded basking under mat 18 (OS grid reference: ST 23560 79484) at the northern end of the site on 18th May 2020. A summary of the results can be seen in Table 3 below.

Table 3: Results of the 2020 reptile survey at Newlands Road, Cardiff

| Survey Number | Date | Reptile(s) Recorded |
|---------------|------------|--------------------------|
| 1 | 28/04/2020 | None |
| 2 | 01/05/2020 | None |
| 3 | 05/05/2020 | None |
| 4 | 13/05/2020 | None |
| 5 | 15/05/2020 | None |
| 6 | 18/05/2020 | 1 juvenile common lizard |
| 7 | 27/05/2020 | None |

Conclusion and Recommendations

Based upon the previous ecological reports and historical data, the site prior to April 2020 had high potential for reptiles particularly due to suitable habitat on site and connectivity to the railway corridor to the north of the site. Following recent visits, the site is in current use by horses and is heavily poached/grazed; the site is now predominantly bare ground and heavily disturbed, reducing its suitability for reptiles.

Furthermore, based on the results from the reptile survey, the site does not qualify for the Key Reptile Site Register. As there was one juvenile common lizard recorded on site, and no adults seen during the surveys, it must be assumed that there is a low population of common lizards on site (see population scores in Table 1).

Although grass snakes have previously occupied the site (Ardeola Environmental Services, 2009) and the reptile exclusion fence has been damaged, the results from the reptile survey do not indicate that

grass snakes have recolonised the site. With a low population of common lizard (one juvenile, no adults), it is recommended that any ground works (i.e. the removal of the damaged reptile exclusion fencing) and vegetation clearance is conducted under a Method Statement which sets out measures to minimise the risk of harming reptiles during construction.

The Method Statement will state that ground works and vegetation clearance must be undertaken when reptiles are active (typically March to October inclusive) and under ecological supervision. Vegetation clearance must be undertaken in a phased manner to displace reptiles from the area:

- The first stage of clearance will require cutting vegetation to approximately 150mm in height and a suitability qualified ecologist being present to perform a destructive hand search of the area immediately prior to the second stage;
- The second stage will require vegetation to be cut to, or as close as possible to, ground level.

This mitigation is considered proportionate to the scale of works and current condition of the site, with respect to reptiles. Any reptiles found must be allowed to move away from the proposed works area unharmed.

If the current condition of the site is altered and habitat suitability for reptiles improves significantly in the next 12 months, it is recommended that an updated reptile survey is undertaken.

References

Ardeola Environmental Services (2009). *Cardiff Waste Treatment Facility Environmental Statement: Chapter 7 – Ecology and Nature Conservation.*

BMD (2020). *Ecological Verification Assessment: Mor Hafren Bio Power, Cardiff.* Reference: BMD.20.012.RPE/TN.802.EcoVerification

Froglife (1999). *Reptile Survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation.* Froglife Advice Sheet 10. Froglife, Halesworth.

Golder Associates (2014). *Updates to Environmental Statement: Ecology and Nature Conservation. Permitted Waste Treatment Facility, Newlands Road, Wentlooge.* Report Number: 14514190588.502/B.1

REC (2019). *Preliminary Ecological Appraisal - Newlands Road, Cardiff.* Reference: 1CO106426EC1R0
09/00246/E Planning application. [online] Available at: <https://planningonline.cardiff.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal= CARDIFF DCAPR 86022> [Accessed 28 May 2020]

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Appendix 1: Site boundary



Image taken from REC Preliminary Ecological Appraisal (July, 2019).

Appendix 2: Site Photographs



Photograph 1: At site from Newlands Road looking northwest across site. Burnt debris at entrance.
Date taken: 22nd April 2020.



Photograph 2: Middle of site, predominately bare ground and heavily poached/grazed by horses looking northwest towards railway. Date taken: 22nd April 2020.



Photograph 3: Condition of site in 2014. Image taken from Updates to Environmental Statement Report (Goulder Associates, 2014). View across site to the northeast.