

Water Vole Survey Report

Parc Solar Traffwll, Anglesey

September 2020

Prepared on behalf of Low Carbon

by

Wychwood Biodiversity Limited



Report Date	Version	Author	Approved
November 2020	1	C Halliday GradCIEEM	Dr G Parker MCIEEM

This report has been submitted in accordance with the Chartered Institute of Ecology and Environmental Management’s Code of Professional conduct and has been prepared with all reasonable skill, care and diligence within the terms of the Contract with the Client. Its contents are compliant with British Standard BS42020: 2013 Biodiversity Code of Practice for Planning and Development. Wychwood Biodiversity disclaims any responsibility to the Client and others in respect of any matters outside the scope of this document. This report has been prepared for the exclusive use of the Client and Wychwood Biodiversity accepts no responsibility to third parties to whom this report, or any part thereof, may be made known. Any advice, opinion or findings stated in this report are based on circumstances and facts as they existed at the time and should be read and relied upon only in the context of this document as a whole. They do not, in any way, purport to include any manner of legal advice or opinion and if this is required, the advice of a qualified legal professional should be secured.

Contents

Executive Summary	2
1.0 Introduction.....	2
1.1 Species Legislation	2
1.2 Local Status	3
2.0 Methodology	3
3.0 Limitations	4
4.0 Results	4
5.0 Conclusions.....	5
Appendix 1. Onsite and adjacent waterways	6
Appendix 2. Photos of waterways	7
Appendix 3. Waterway descriptions and water vole assessments	10
Appendix 4. Results of D4.1 survey September 2020	12
Appendix 5. Water vole and otter signs identified during field surveys 2019-2020	16

Executive Summary

This report presents the results of a survey for water voles at Traffwll proposed solar park in Anglesey, North Wales. The surveys also took into account otter signs observed incidentally.

The data search and relevant enquiries found that water voles are known to be present throughout waterways in the local area.

Suitable waterways in Plots 1, 3, 4, 6 and 9 were assessed for water vole signs. No signs were found in any waterways. In general, the waterways were of low quality for this species and were thought to constitute transitional habitats for water voles rather than offer space for permanent territories and that water voles are likely to occasionally move through sites with suitable waterways.

Avoidance measures will include developing at least 2m away from all small waterways (those measuring <2m width), 5m away from the ditch running along the north of Plot 3 (D3.8) and the larger waterway leading through Plot 6 into Llyn Penryn and 10m away from the Afon Crigyll which is a larger stream adjacent to Plot 4 (D4.1). Water voles have also been known to use the waterway running through Plot 9 but as this plot is no longer a part of the proposals, avoidance measures are not necessary here.

Otter signs were found adjacent to Plot 4 and Plot 6 and to the north of Plot 9.

1.0 Introduction

Water vole and otter surveys were undertaken in July 2019 in relation to an application for planning permission for a solar park on plots of land near to Llyn Traffwll in Anglesey (Central grid reference SH 326 769). A total of seven parcels of land have been considered in connection with this proposal.

1.1 Species Legislation

The water vole *Arvicola amphibious* is listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and received “full protection” in 2008. This makes it an offence, inter alia, to:

- intentionally kill, injure, or take (handle) any water vole (in England and Wales);
- intentionally or recklessly damage or destroy or obstruct access to any structure or place which water voles use for shelter or protection; or
- intentionally or recklessly disturb water voles while they are using such a place.
- Sell, offer for sale, possess or transport for the purposes of sale, any live or dead water vole, or advertising any of these for buying or selling.

Water voles use, for their place of shelter or protection, a network of active burrows and/or nests within the burrow system, or amongst dense vegetation above ground.

Water vole European Protected Species (EPS) mitigation licenses cannot be granted for development in Wales. Thus, in the case of requiring a license to undertake works it must be a Conservation license, which requires an improvement to the current status of habitat overall.

1.2 Local Status

The water vole is included in Anglesey's Local Biodiversity Action Plan I: B3 Species Action Plansⁱ. It is thought that the water vole is widespread throughout Anglesey in suitable habitat, including ditches and wetlands, especially in the south and east of the island. There is currently a water vole monitoring project in the local area run by the welsh charity Mentermon. Water voles are at risk from changes in water quality, overgrazing and poaching of riverbanks, maintenance of wide river habitat and wetland zones, flood management, the possibility of mink colonisation and resulting predation, and habitat fragmentation.

The otter is also included in Anglesey's B3 SAPs. Otters re-established in Anglesey in the mid-2000's and are thought to be widespread on the island. Otters are at risk from pesticide and general pollution (sewage, slurry, lime runoff from fields), riverside habitat loss and degradation, overgrazing leading to poaching and loss of bankside vegetation, water quality, availability of resting and breeding sites, and disturbance.

2.0 Methodology

A data search was requested from the North Wales Environmental Information Service – COFNOD – for protected species within 2km of the site boundary. The local water vole monitoring project, run by Mentermon, was also consulted.

A desktop search was carried out using aerial images and Ordnance Survey maps at a scale of 1:50,000 to find waterways present within the site or along site boundaries, that might be affected by the development.

No new crossing points over waterways are proposed as part of the development, however it was deemed necessary to make an assessment of the usage of waterways by water voles to ensure harm was avoided and disturbance minimised.

Surveys of the waterways identified as having potential to support water voles were carried out between the 13th and 18th July 2019 by Clare Halliday and Angus Layton and again between the 6th and 8th August 2020 by Clare Halliday and Lauren Annetts. A further survey of D4.1 was carried out by Alison Johnston on the 23rd September 2020. Signs of otters were also recorded during the surveys. Surveys involved a walkover of all suitable waterways, surveying both banks wherever they were accessible. Surveys were carried out following survey methodologies set out in current guidanceⁱⁱ, taking into account both the potential scale of impact of the works and the size of the survey area. It is anticipated that no new crossing points will be made as a result of the current proposals, and the development would use existing bridges and crossings. However a full check was carried out along all waterways within the site, whereby each waterway was assessed for its suitability for water voles and a full survey was made along the length of each waterway for water vole signs, where the banks could be accessed. Survey effort involved a search for any evidence of water voles, including burrows, droppings and latrines, footprints and feeding remains, as well as observations of live individuals.

Surveys were conducted in Plots 1, 3, 4, 5, 6, 8 and 9 in July 2019 and in Plots 3, 4, 5 and 6 in August 2020 due to Plots 1, 8 and 9 being removed from the proposals for unrelated reasons.

3.0 Limitations

Whilst every effort has been made to provide accurate information and advice based upon the results of surveys undertaken in line with scientific guidance, within the limits of the resources available, there remain limitations in survey work of this nature. These include the possibility that ecological features were missed due to their absence at the time of the survey, or the year of survey and absence during surveys does not rule out the possibility of their being present at other times. Water levels varied depending on prevailing weather conditions and higher water levels may have led to some signs being missed whilst low water levels may have led to reduced activity.

4.0 Results

The data search from COFNOD returned 202 records of water voles within 2km of the site boundary, recorded between 1977 and 2017.

The data search returned 67 records of otters within 2km of the site boundary between 1995 and 2017.

The desktop search identified potential waterways within Plots 3, 6, 8 and 9 and along the boundaries of Plots 1 and 4. These are shown on the map in **Appendix A** and photographs and descriptions are included in **Appendices B and C**. All waterways with suitability for water voles were surveyed.

The local monitoring project run by Mentermon uses raft surveys in several locations on land within the close vicinity of the proposal site, including directly to the south of Plot 6 and to the northwest of Plot 1. The RSPB have also regularly recorded water voles on the Afon Crigyll and its tributaries. The Crigyll runs along the west of Plot 4 and close to the western boundary of Plot 3.

Evidence of water voles was found in the Afon Crigyll to the west of Plot 4 during a survey in September 2020, with latrines, feeding remains and a burrow encountered along the section that borders the western edge of Plot 4 (D4.1) (photographs in **Appendix D**). No water voles were observed during the visit.

No other evidence of water voles was found during any of the surveys on other waterways throughout the site. No incidental sightings or evidence of water voles have been made during any of the other site visits carried out on site during 2019 or 2020.

During the surveys evidence was found of otters in three locations: otter spraint was found at D4.1 to the west of Plot 4; an otter print was found within the waterway on the western boundary of Parcel 6 (D6.7); and otter spraint was found on a rock within the southern margin of Llyn Traffwll, within 250m of the northern boundary of Plot 9.

5.0 Conclusions

Water voles are present within the environment local to the proposals, particularly along the Afon Crigyll, which runs to the west of Plot 3 and Plot 4, and its tributaries. Water voles use the Crigyll as a main habitat, with signs of territories including feeding stations and burrows stationed regularly along its length. Overall water voles are found to use waterways on the peripheries of Plots 1, 3, 4 and 6. Lack of evidence of water voles along drains within the bounds of surveyed plots suggests that water voles either do not use, or rarely use, waterways within the proposal site itself. There is no evidence that water voles use the drains for shelter or protection, rather would only use them for infrequently commuting between suitable habitats.

The proposals will not have any direct impacts on any waterways and will seek to minimise indirect impacts and are therefore not expected to impact upon water voles using the sites or surrounding landscape.

There is no standard guidance as to the setbacks required between water vole habitat and construction of a solar farm and required distances are calculated using knowledge of their presence in the local area and knowledge of the potential impacts of the development. A setback of at least 10 metres is recommended from the nearside bank of the Afon Crigyll. A setback of at least 5 metres is recommended from the waterway running along the northwest of Plot 3, D3.8 and from the main waterway running through the centre of Plot 6, D6.8. A setback of at least 2 metres is recommended from all other waterways throughout the site. At present the land in the margins of the waterways are farmed as close as possible whereas with setbacks the margins will be improved, with good quality grassy margins containing a wider zone of taller vegetation. The setbacks will also benefit otters in the local area.

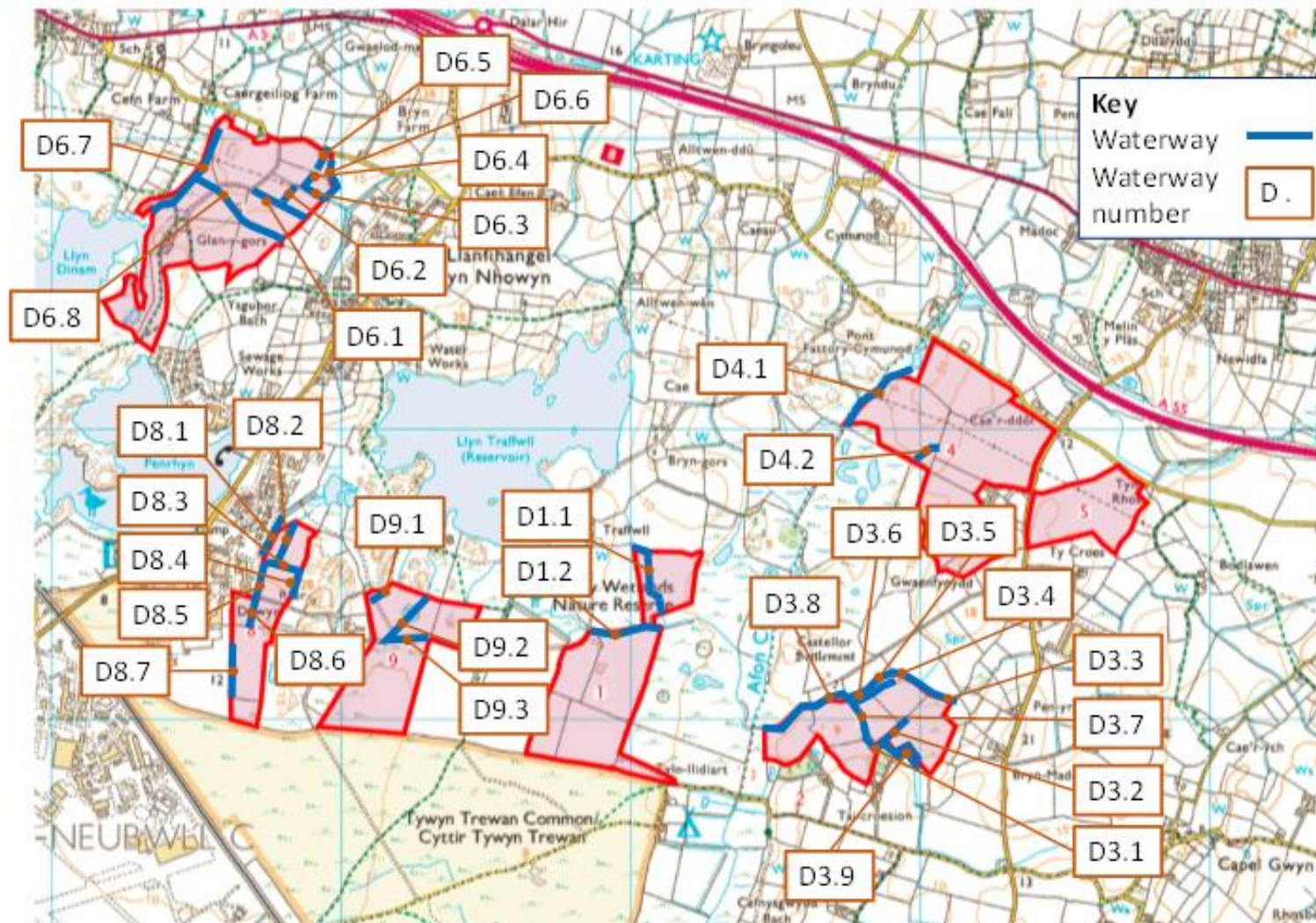
Additional measures that should be taken to avoid impacts to water voles and otters include the following:

- Incorporation of suitable habitat for water voles into drainage schemes for the proposals. In particular this may apply to Plot 6.
- Avoidance of culverting any watercourses.
- Use of existing crossing points and bridges rather than creating new ones.
- Installing pipelines or services using no-dig and trenchless methods, such as directional drilling.

6.0 References

- i. Isle of Anglesey County Council webpage (2020). What are we doing to help biodiversity? Pdfs available from <https://www.anglesey.gov.uk/en/Residents/Countryside/Biodiversity/What-are-we-doing-to-help-biodiversity-on-Anglesey.aspx>
- ii. Dean M, Strachan R, Gow D & Andrews R., 2016. The water Vole Mitigation Handbook; *The Mammal Society Mitigation Guidance Series*.

Appendix 1. Onsite and adjacent waterways



Appendix 2. Photos of waterways

Plot 1



Plot 4



Plot 9



Plot 3



Plot 6



Appendix 3. Waterway descriptions and water vole assessments

Waterway # (D.)	Description	Water vole survey date(s)	Water vole assessment
1.1	No evidence of a waterway here.	n/a	n/a
1.2	Wide drain with approx. 10-20cm deep water.	July 2019	No presence detected
3.1	Shallow water 2-5cm, 1m wide. Overgrown with gorse.	July 2019, August 2020	No presence detected
3.2	Muddy, water in places 2-5cm deep, 1m wide. Lots of use by sheep. Grassy with little water in most places.	July 2019, August 2020	No presence detected
3.3	Very overgrown with gorse, bramble, nettles. No water seen in the places where it is visible, thought to be muddy.	July 2019, August 2020	No presence detected
3.4	1-2cm water, 50cm-1m wide, overgrown. Wetter towards the west. Grasses, nettles, water parsnip, heather along the banks.	July 2019, August 2020	No presence detected
3.5	1-2cm water. Mint, water parsnip along the banks.	July 2019, August 2020	No presence detected
3.6	Muddy, heavy vegetation – bullrush, nettle, mint. 1-2cm water, next to a marshy area of grassland. Dry to the west.	July 2019, August 2020	No presence detected
3.7	Mostly dry, 1cm water. 1m wide. Bramble on banks.	July 2019, August 2020	No presence detected
3.8	Other side of a wall, not visible or accessible. 5-10cm deep where seen.	n/a	n/a
3.9	Behind a wall. 1-2m wide.	n/a	n/a
4.1	Part of the Afon Crigyll. Approx. 2m wide, 1m deep. Steep banks with grass, shrubs and small trees.	September 2020	Presence detected: 1 burrow Feeding stations
4.2	Muddy dip in the ground.	n/a	n/a
6.1	No water.	July 2019, August 2020	No presence detected

6.2	No water. Water plants growing, including forget-me-not, mint, water cress	July 2019, August 2020	No presence detected
6.3	No water	July 2019, August 2020	No presence detected
6.4	Water all year round. Vegetation includes bullrush, rushes, bird's-foot trefoil, water mint, St. John's wort.	July 2019, August 2020	No presence detected
6.5	Mostly dry, muddy.	July 2019, August 2020	No presence detected
6.6	Outside the site boundary. Heavily vegetated. No water seen.	July 2019, August 2020	No presence detected
6.7	Flowing water, 5-15cm deep. Well used by horses. Dense vegetation – willowherbs, mints, bullrush.	July 2019, August 2020	No presence detected
6.8	Drain running into Llyn Dinam. Mostly shallow and muddy, deeper in places especially closer to the lake.	July 2019, August 2020	No presence detected
8.1	No drain.	n/a	n/a
8.2	Dry, grassy old drain.	n/a	n/a
8.3	Dry, grassy old drain.	n/a	n/a
8.4	Dry, grassy old drain.	n/a	n/a
8.5	Dry, grassy old drain.	n/a	n/a
8.6	Dry, grassy old drain.	n/a	n/a
8.7	Dry, grassy old drain. Scrubbed over.	n/a	n/a
9.1	Muddy drain.	July 2019	No presence detected
9.2	Wet muddy drain running through a muddy pond. Heavily vegetated.	July 2019	No presence detected
9.3	No drain. Muddy ground.	July 2019	No presence detected

Appendix 4. Results of D4.1 survey September 2020

Traffwll, Bryngwran water vole survey undertaken 23.09.20

- A. East end of the water course surveyed there is a pool of water with large rocks. 4 fresh otter spraints found on rocks, one very fresh probably from the previous night.



- B. Feeding station on vegetation on southern bank just into vegetation from the pool area. Water levels high and over the bank in this section.



- C. Floating feeding stations in amongst the reeds as well as plenty of individual bits of cut vegetation that were probably piles before the water level rose. At least 4 floating feeding stations and 1 on the bank in the reeds. Opposite bank is grazed short.



- D. Section from fence line on northern bank to slight bend in the water course. The vegetation on northern bank is longer here than the previous section. Feeding station with old vegetation on the bottom and fresh on top in the reeds. Fresh feeding stations in the water course. Field vole signs along bank, on platforms with feeding remains. After the slight bend the water gets much deeper.



- E. Otter spraint on top of large boulder on bank side.
1 latrine found, with some trampling + burrow in bank.
Feeding stations found in the reeds and cut stems floating in the water.



- F. Polystyrene in water with water vole latrine on.
Numerous feeding stations in the reeds.



- G. Feeding stations within the reeds and floating vegetation also field vole feeding remains higher up in vegetation.



