

Rush Wall Solar Park

Environmental Statement

Appendix 5.7

Water Vole survey

Water Vole Survey Rush Wall Solar Park April 2020

Report no: WVole-526.1

A report by

James Gilroy BSc (Hons), MSc

Report details

Site name: Rush Wall Solar Park
Site address: Redwick, Newport
Grid reference: ST 416 853
Report date: 30th April 2020
Report author: James Gilroy BSc (Hons), MSc
Checked by: Colin Hicks BSc (Hons) MCIEEM

Report no: WVole-526.1

Declaration of compliance

BS 42020:2013

This study has been undertaken in accordance with British Standard 42020:2013 Biodiversity, Code of Practice for Planning and Development.

Code of Professional Conduct

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Validity of survey data and report

The findings of this report are valid for 24 months from the date of survey. If work has not commenced within this period, an updated survey by a suitably qualified ecologist will be required.

Revisions

Date	Report no:	Approved by:	Comment
21/05/2020	WVole-526.1	CDH	Original report

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1. Introduction

Western Ecology has been commissioned to complete a Water Vole survey on an area of land for the proposed Rush Wall Solar Park near Redwick.

1.1. Survey aims

The aim of this survey is to ascertain whether Water Voles are present within this site.

Where appropriate, the survey will provide the information required to determine the appropriate level of mitigation required to ensure compliance with wildlife legislation and relevant planning policy.

2. Methodology

2.1. Desktop survey

The data search collated existing biological records of Water Voles within 2km that are held by South East Wales Biodiversity Records Centre.

This data was examined and an assessment was then made, based on known habitat preferences, as to whether these species may be present within the site and how they may be affected by the proposal.

2.2. Field survey

All areas within 10 metres of watercourses associated with the site were carefully searched for field signs of Water Vole by an ecologist who meets the required competency level for Water Vole surveys (CIEEM, 2016).

Field signs include;

- Burrows - holes along the waters edge, and in the bank above, that are wider than high with a diameter of 4-8cm,
- Latrines - collections of droppings that are 8-12mm long, 4-5mm wide, cylindrical with blunt ends, green/brown/black and have no odour,
- Grazed lawns - nursing females on the nest graze vegetation around the burrow entrance short to form a 'lawn',
- Feeding remains - neat piles of chewed lengths of vegetation up to 10cm long and with 45 degree cuts to their ends,
- Runways in vegetation - low runs or tunnels 5-10cm wide pushed through the vegetation leading to the water's edge, burrow entrances or favoured feeding areas,
- Water Voles sightings.

The survey was completed on 8th April 2020 between 10:00 and 16:00 with an air temperature of 18°C, light winds, dry and 30% cloud cover.

2.3. Survey constraints

All areas of the immediate development site were readily accessible. The optimal survey period for Water Vole is between April and late September.

3. Results

3.1. Desktop survey

The biological record search returned 2707 records for Water Vole within 2km of the Site.

The records include a number that are attributed to Gwent Wildlife Trust Water Vole Re-introduction Monitoring Surveys. This re-introduction released more than 200 Water Voles into their Magor Marsh reserve, the western-most part of which is located just approximately 500 metres to the south east, and included mink control measures. Gwent Wildlife Trust were consulted with regards to records they may hold for Water Vole, but they did not respond.

It is very likely that Water Vole are present within this area.

3.2. Habitat Assessment

The wider Site is predominantly comprised of agricultural grasslands with negligible value for Water Vole. However, the field margins comprise a network of reens (drainage ditches) that are fringed with semi-natural vegetation comprising Bulrush *Typha* sp., Common Reed *Phragmites australis*, Soft Rush *Juncus effusus*, Bramble *Rubus fruticosus* agg., Hawthorn *Crataegus monogyna*, sedges and common grasses.

Water quality is good in most areas, although discrete sections of the reens featured extensive algal cover, likely due to nitrification from associated agricultural run off. The extent of aquatic habitat is extensive with potential to escape predators. Mink monitoring rafts were present on the northern boundary, indicating that this site is important for Water Vole.

Bank clearance & reprofiling work had been conducted along a limited stretch of a reen in the eastern section of the Site, with all bankside vegetation removed and the bank scraped and compacted. As a result, Water Vole are unlikely to be associated with this particular area.

3.3. Field survey

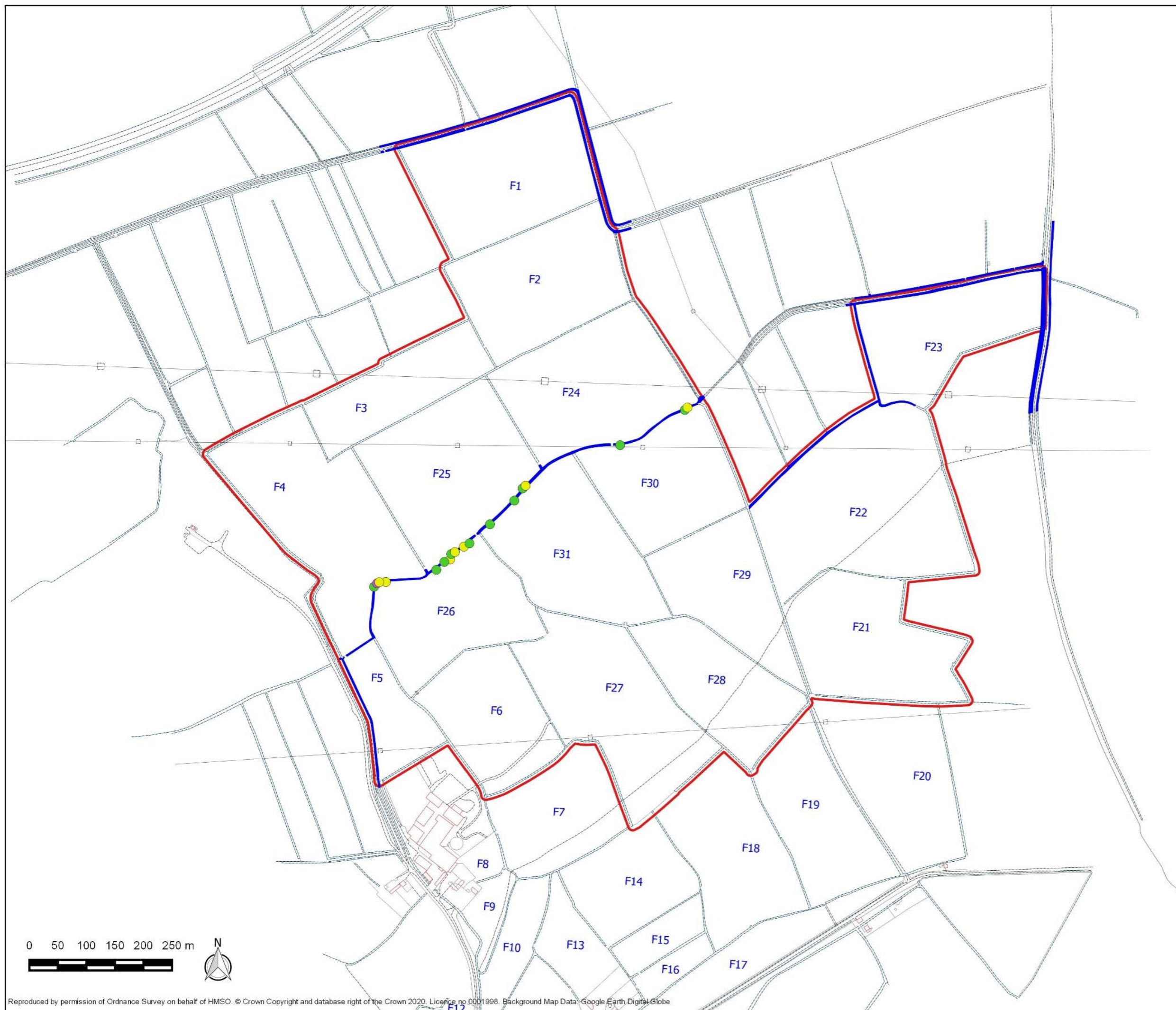
The extent of the Water Vole survey is shown on Map 1. During this survey, historical evidence of Water Vole was identified across the majority of the survey area. This evidence consisted of occasional burrows along the bank sides and at the waterline, however no recent signs of activity (although no fresh evidence, such as grazed lawns, latrines or feeding remains) were recorded. Mammal monitoring stations that were present within two of the reens in the northern and eastern areas also lacked any evidence such as droppings or latrines.

A high concentration of recent evidence of Water Vole was recorded along a stretch of reen, approximately 820m in length and located within the central area of the Site (shown in Map 1). A total of 7 potential burrows and approximately 11 fresh latrines

were recorded along this stretch. Several areas exhibiting characteristically grazed vegetation were also recorded.

Legend

- Development footprint
- Reens surveyed for Water Vole
- Water Vole burrow with signs of activity
- Water Vole latrine



Title: Map 1. Field survey results

Project: Rush Wall Solar Park

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4. Water Voles and the Law

Water Vole is protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under the Act it is an offence to:

- intentionally capture, kill, disturb or injure Water Voles (on purpose or by not taking enough care);
- destroy or block access to their places of shelter or protection;
- possess, sell, control or transport live or dead bats, or parts of them.

Water Vole are listed under Section 7 of the Environment (Wales) Act 2016.

5. Assessment of the site value for Water Vole

Although the majority of the site lacked recent evidence of Water Vole, a limited area within the centre of the site exhibited a high concentration of field signs of recent activity.

Water Vole are known to be in the local area, and as the reens are generally well connected across the Site, it is safe to conclude that Water Vole are present across the wider site.

The Site is of Local value for Water Vole.

6. References

BSI, 2013. *British Standard 42020: 2013. Biodiversity – Code of practice for planning and development*. British Standards Institution, London.

CIEEM, 2016. Technical Guidance Series. Competency for species survey: Water Vole. Downloaded on 03/11/2016 from http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/CSS/CSS_-_WATER_VOLE_April_2013.pdf